

General

Name

Motorola Transceiver; Astro Spectra W4

ID# 101



Model Number(s)

Astro Spectra W4

Technology

Mobile, conventional and trunked portable radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz
450 MHz to 482 MHz and 482 MHz to 512 MHz
800 MHz: 806 MHz to 824 MHz and 851 MHz to
870 MHz

Number of Personnel Supported by System

One

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

128 channels

Transmitter Power Output Levels

10 W to 110 W

Battery Options

Limited options

Battery Recharging Options

Not specified

Physical Parameters

Size

2 in x 7.1 in x 2.2 in

Weight

6.1 lb

Power Requirements

12 V dc

External Power

Not specified

Available Accessories

Speaker-Microphones

Yes

Carrying Cases	No
Battery Eliminators	Not specified
Vehicle Adapters	Not specified

Logistical Parameters

Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$2.4K MSRP and contact dealer for discount pricing
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Not specified

Special Requirements

Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810E
Intrinsically Safe	Not specified

General

Name

Motorola Transceiver; Astro Spectra W5

ID# 102



Model Number(s)

Astro Digital Spectra W5

Technology

Mobile, conventional and trunked portable radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz
450 MHz to 482 MHz, and 482 MHz to 512 MHz
800 MHz: 806 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

128 channels

Transmitter Power Output Levels

10 W to 110 W (35 W on 800 MHz)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 7.1 in x 2.2 in

Weight

6.1 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable

Logistical Parameters

Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$2.4K MSRP and contact dealer for discount pricing
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Digital capable

Special Requirements

Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810E
Intrinsically Safe	Not specified

General

Name

Motorola Transceiver; Astro Spectra W7

ID# 103



Model Number(s)

Astro Digital Spectra W7

Technology

Mobile, conventional and trunked portable radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz
450 MHz to 482 MHz, and 482 MHz to 512 MHz
800 MHz: 806 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

10 W to 110 W (35 W on 800 MHz)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 7.1 in x 2.2 in

Weight

6.1 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable

Logistical Parameters

Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$2.7K MSRP and contact dealer for discount pricing
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Digital capable

Special Requirements

Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810E
Intrinsically Safe	Not specified

General

Name

Motorola Transceiver; Astro Spectra W9

ID# 104



Model Number(s)

Astro Digital Spectra W9

Technology

Mobile, conventional and trunked portable radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz
450 MHz to 482 MHz, and 482 MHz to 512 MHz
800 MHz: 806 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

10 W to 110 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

3.4 in x 6.5 in x 1.7 in

Weight

6.1 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable

Logistical Parameters

Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$3K MSRP and contact dealer for discount pricing
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Digital capable

Special Requirements

Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810E
Intrinsically Safe	Not specified

General

Name

Motorola Transceiver, Portable; VISAR

ID# 105



Model Number(s)

VISAR

Technology

Portable, conventional

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

VHF: 136 MHz to 178MHz
UHF: 403 MHz to 470 MHz and 450 MHz to 520 MHz
800 MHz: 806 MHz to 866 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

2 NiCad 1200 mAh; 1 NiMH 600 mAh; 1 NiMH 1300 mAh; and 1 NiMH 1500 mAh

Battery Recharging Options

1 desktop, single unit standard charge rate charger; 4 desktop, dual unit rapid charge rate chargers; 16 unit rapid rate charger; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

4.1 in x 2.2 in x 0.6 in (without battery)

Weight

4.8 oz (without battery)

Power Requirements

7.5 V dc

External Power	Yes, with optional battery eliminator
<u>Available Accessories</u>	
Speaker-Microphones	1 standard model available; 3 ear worn speaker microphones available
Carrying Cases	6 leather carrying cases; 2 nylon carrying cases; 1 belt clip; universal chest pack; breakaway chest pack; and universal radio pack (worn around waist)
Battery Eliminators	Yes, available from Motorola
Vehicle Adapters	No
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Withstands rain testing; impact resistant housing, and weather resistant housing
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$1.1K MSRP, contact dealer for discount pricing
Battery Cycle Life	4+ h at 5/5/90 cycle
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	Intrinsically safe option available

General

Name

Motorola Transceiver, Portable; HT 1000

ID# 106



Model Number(s)

HT 1000

Technology

Portable, conventional

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470 MHz and 450 MHz to 520 MHz
800 MHz: 806 MHz to 825 MHz and 851 MHz to
870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

2 channels to 16 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

3 NiCad 1200 mAh; 1 NiCad 1300 mAh; 4 NiCad 1400 mAh; 1 NiMH 1900 mAh; and 1 NiMH 2000 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 3 multi unit rapid rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

3.2 oz (without battery)

Power Requirements

7.5 V dc

External Power	Yes, with optional battery eliminator
<u>Available Accessories</u>	
Speaker-Microphones	5 standard models available; 6 ear worn speaker microphones available
Carrying Cases	12 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist)
Battery Eliminators	Yes, available from Motorola
Vehicle Adapters	Not specified
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Durable
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$1K MSRP and contact dealer for discount pricing
Battery Cycle Life	9 h at 5/5/90 cycle
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	Intrinsically safe option available

General

Name

Motorola Transceiver, Portable; JT 1000

ID# 107



Model Number(s)

JT 1000

Technology

Portable, conventional

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470 MHz and 450 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

1 NiCad 1200 mAh; 1 NiCad 1400 mAh;
and 1 NiMH 2000 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 1 multi unit rapid rate charger; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

9.6 oz (without battery)

Power Requirements

7.5 V dc

External Power

Yes, with optional battery eliminator

Available Accessories

Speaker-Microphones

5 standard models available; 6 ear worn speaker microphones available

Carrying Cases

12 leather carrying cases; 2 nylon carrying cases; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist)

Battery Eliminators

Yes, available from Motorola

Vehicle Adapters

Not specified

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard use

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$1.2K MSRP and contact dealer for discount pricing

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

Intrinsically safe option available

General

Name

Motorola Transceiver, Portable; MT 2000 VHF

ID# 108



Model Number(s)

MT 2000 Model I

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

VHF: 136 MHz to 178 MHz
UHF: 405 MHz to 470 MHz and 450 MHz to 520 MHz
800 MHz: 806 MHz to 870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

48 channels to 160 channels (depending upon configuration)

Transmitter Power Output Levels

1 W to 5 W

Battery Options

NiCad: 4 high capacity (1200 or 1300 mAH); 4 ultra high capacity (1400 mAH) NiMH: 2 high capacity (1900 mAH and 2000 mAH)

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit regular charge rate chargers; 2 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 multi units

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

9.6 oz (without battery)

Power Requirements

6 V dc to 9 V dc

External Power	Yes, with optional battery eliminator
<u>Available Accessories</u>	
Speaker-Microphones	5 standard models available and 6 ear worn speaker microphones available
Carrying Cases	11 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist)
Battery Eliminators	Yes, available from Motorola
Vehicle Adapters	Yes
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Designed for ruggedness and weather sealed universal connector
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$1.3K MSRP and contact dealer for discount pricing
Battery Cycle Life	8 h at 5/5/90 cycle
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	Intrinsically safe option available

General

Name

Motorola Transceiver, Portable; MTS 2000 Model I

ID# 109



Model Number(s)

MTS 2000 Model I

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

POC: Ron Zeberlein
410-712-6014 (Tel)

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 178 MHz
UHF: 405 MHz to 470 MHz and 450 MHz to 520 MHz
800 MHz: 806 MHz to 825 MHz, 851 MHz to 870 MHz,
896 MHz to 902 MHz, and 935 MHz to 941 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

48 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

NiCad: 4 high capacity (1200 or 1300 mA); 4 ultra high capacity (1400 mA) NiMH: 2 high capacity (1900 mA and 2000 mA)

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit regular charge rate chargers; 3 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 multi units

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

9.6 oz (without battery)

Power Requirements

6 V dc to 9 V dc

External Power	Yes, with optional battery eliminator
<u>Available Accessories</u>	
Speaker-Microphones	3 standard models available; 6 ear worn speaker microphones available
Carrying Cases	11 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist)
Battery Eliminators	Yes, available from Motorola
Vehicle Adapters	Yes
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Designed for ruggedness and weather sealed universal connector
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$1.7K MSRP, contact dealer for discount pricing
Battery Cycle Life	8 h at 5/5/90 cycle
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	Intrinsically safe option available

General

Name

Motorola Transceiver, Portable; MTS 2000 Model II

ID# 110



Model Number(s)

MTS 2000 Model II

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 178 MHz
UHF: 405 MHz to 470 MHz and 450 MHz to 520 MHz
800/900 MHz: 806 MHz to 870 MHz, and 896 MHz to 941 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

NiCad: 4 high capacity (1200 or 1300 mA); 4 ultra high capacity (1400 mA) NiMH: 2 high capacity (1900 mA and 2000 mA)

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit regular charge rate chargers; 3 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 multi units

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

11.2 oz (without battery)

Power Requirements	6 V dc to 9 V dc
External Power	Yes, with optional battery eliminator
<u>Available Accessories</u>	
Speaker/Microphones	3 standard models available; 6 ear worn speaker microphones available
Carrying Cases	11 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist)
Battery Eliminators	Yes, available from Motorola
Vehicle Adapters	Yes
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Designed for ruggedness; weather sealed universal connector
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$2.1K MSRP and contact dealer for discount pricing
Battery Cycle Life	8 h at 5/5/90 cycle
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	Intrinsically safe option available

General

Name

Motorola Transceiver, Portable; MTS 2000 Model III

ID# 111



Model Number(s)

MTS 2000 Model III

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 178 MHz
UHF: 405 MHz to 470 MHz and 450 MHz to 520 MHz
800/900 MHz: 806 MHz to 870 MHz and 896 MHz to 941 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

NiCad: 4 high capacity (1200 or 1300 mAH); 4 ultra high capacity (1400 mAH) NiMH: 2 high capacity (1900 mAH and 2000 mAH)

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit regular charge rate chargers; 3 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 multi units

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

11.2 oz (without battery)

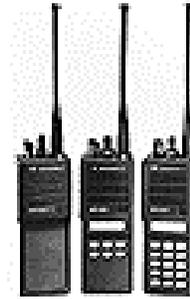
Power Requirements	6 V dc to 9 V dc
External Power	Yes, with optional battery eliminator
<u>Available Accessories</u>	
Speaker-Microphones	3 standard models available and 6 ear worn speaker microphones available
Carrying Cases	11 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist)
Battery Eliminators	Yes, available from Motorola
Vehicle Adapters	Yes
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Designed for ruggedness; weather sealed universal connector
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$2.5K MSRP and contact dealer for discount pricing
Battery Cycle Life	8 h at 5/5/90 cycle
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	Intrinsically safe option available

General

Name

Motorola Trunked Portable Radio; MTX 8000 Model B3

ID# 112



Model Number(s)

MTX 8000 Model B3

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

851 MHz to 870 MHz (8000)
896 MHz to 941 MHz (9000)

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

4/4 or 15/10 systems/talk groups

Transmitter Power Output Levels

3 W

Battery Options

3 NiCad 1200 mAh; 1 NiCad 1300 mAh; 4 NiCad 1400 mAh; 1 NiMH 1900 mAh; and 1 NiMH 1900 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 3 multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 0.6 in (without battery)

Weight

9.6 oz (without battery)

Power Requirements

6 V dc to 9 V dc

External Power

Yes, with optional battery eliminator

Available Accessories

Speaker-Microphones

5 standard models available; 8 ear worn speaker microphones available

Carrying Cases

12 leather carrying cases; 1 nylon carrying cases; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; universal radio pack (worn around waist)

Battery Eliminators

Yes, available from Motorola

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard use

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$910 MSRP contact dealer for discount pricing

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

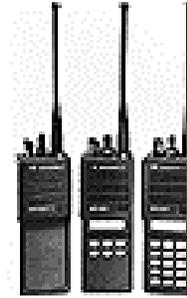
No

General

Name

Motorola Trunked Portable Radio; MTX 8000 Model B5

ID# 113



Model Number(s)

MTX 8000 Model B5

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

851 MHz to 870 MHz (8000)
896 MHz to 941 MHz (9000)

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

4/4 or 15/10 systems/talk groups

Transmitter Power Output Levels

3 W

Battery Options

3 NiCad 1200 mAh; 1 NiCad 1300 mAh; 4 NiCad 1400 mAh; 1 NiMH 1900 mAh; and 1 NiMH 1900 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 3 multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 0.7 in (without battery)

Weight

11.2 oz (without battery)

Power Requirements

6 V dc to 9 V dc

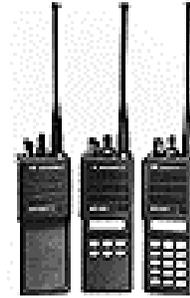
External Power	Yes, with optional battery eliminator
<u>Available Accessories</u>	
Speaker-Microphones	5 standard models available; 8 ear worn speaker microphones available
Carrying Cases	12 leather carrying cases; 1 nylon carrying cases; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist)
Battery Eliminators	Yes, available from Motorola
Vehicle Adapters	No
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$1.1K MSRP and contact dealer for discount pricing
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	No

General

Name

Motorola Trunked Portable Radio; MTX 8000/9000 Model B7

ID# 114



Model Number(s)

MTX 8000/9000 Model B7

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

851 MHz to 870 MHz (8000)
896 MHz to 941 MHz (9000)

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

4/4 or 15/10 Systems/talkgroups

Transmitter Power Output Levels

3 W

Battery Options

3 NiCad 1200 mAh; 1 NiCad 1300 mAh; 4 NiCad 1400 mAh; 1 NiMH 1900 mAh; and 1 NiMH 1900 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 3 multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 0.7 in (without battery)

Weight

11.2 oz (without battery)

Power Requirements

7.5 V dc

External Power	Yes, with optional battery eliminator
<u>Available Accessories</u>	
Speaker-Microphones	5 standard models available; 8 ear worn speaker microphones available
Carrying Cases	12 leather carrying cases; 1 nylon carrying cases; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist)
Battery Eliminators	Yes, available from Motorola
Vehicle Adapters	No
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$1.3K MSRP and contact dealer for discount pricing
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	No

General

Name

Motorola Station/Repeater; QUANTAR

ID# 115

Picture Not Available

Model Number(s)

QUANTAR

Technology

Functions as a base station or repeater (conventional or trunking)

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 132 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz, 470 MHz to 494 MHz, and 494 MHz to 512 MHz
800/900 MHz: 806 MHz to 870 MHz and 896 MHz to 941 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

Not specified

Transmitter Power Output Levels

25 W to 125 W

Battery Options

Backup battery system available

Battery Recharging Options

Backup battery system available

Physical Parameters

Size

8.8 in x 19 in x 17 in

Weight

55 lb

Power Requirements

25 W Model: 12 V dc
100 W to 125 W Models: 24 V dc

External Power

Backup battery system available

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$11K MSRP and contact dealer for discount pricing
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Digital capability
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	Not specified

General

Name

Motorola Station/Repeater; QUANTRO

ID# 116

Picture Not Available

Model Number(s)

QUANTRO

Technology

Repeater, conventional or trunking base station or repeater

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 132 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz, 470 MHz to 494 MHz, and 494 MHz to 512 MHz
800/900 MHz: 806 MHz to 870 MHz and 896 MHz to 941 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

Up to 128 modes

Transmitter Power Output Levels

2 W to 20 W or 3 W to 30 W

Battery Options

Backup battery system available

Battery Recharging Options

Backup battery system available

Physical Parameters

Size

8.8 in x 19 in x 17 in

Weight

55 lb

Power Requirements

Multiple options depending on power output of transmitter

External Power

Backup battery system available

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators Not applicable
Vehicle Adapters Not applicable

Logistical Parameters

Programming Dealer/User (authorized technician)
Repairs Dealer
Decontamination Not specified
Durability/Ruggedness Standard use
Environmental Conditions -22 °F to 140 °F
Unit Cost \$11K MSRP and contact dealer for discount pricing
Battery Cycle Life Not specified
Rapid Charge Battery Cycle Life Not specified
Maintenance Cost Not specified
Interface Capability Digital capable

Special Requirements

Operator Skills Required Average
Operator Training Requirements Average
Training Available Yes
Manuals Available Yes
applicable Regulations Not specified
Support Equipment Available
Warranty 1 yr
Mil Spec/Mil-Std Ratings No
Intrinsically Safe Not specified

General

Name

Motorola Portable Repeater; Portable Repeater 2

ID# 117

Picture Not Available

Model Number(s)

Portable Repeater 2

Technology

Conventional repeater

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 406 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

Up to 128 modes

Transmitter Power Output Levels

2 W to 20 W or 3 W to 30 W

Battery Options

Internal emergency battery

Battery Recharging Options

Internal emergency backup battery recharger

Physical Parameters

Size

19.8 in x 13.3 in x 7.8 in

Weight

40 lb

Power Requirements

110 V ac/240 V ac or external 12 V dc

External Power

12 V dc

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$16K MSRP and contact dealer for discount pricing
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Not specified

Special Requirements

Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	1 yr
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	No

General

Name

Racal Transceiver, Portable; MBITR (Multiband Inter/Intra Team Radio)

ID# 118



Model Number(s)

Multiband Inter/Intra Team Radio
AN/PRC-14 (V)(C)

Technology

Portable, conventional

Manufacturer

Racal Communications Inc.
5 Research Place
Rockville, Maryland 20850
301-948-4420 (Tel)
301-948-6371 (Fax)
www.racalcomm.com

POC: Steve Nichols
301-208-7654 (Tel)
steve.nichols@racalcomm.com

Secure Communication Capability

2 levels embedded: Type 1 COMSEC, commercial
COMSEC
Keyfill devices: CYZ 10 (DTD), KYK 13, KOI 18

Availability

Available

Frequency Range

30 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 W FM/AM LOS, UHF military satellite with proper antenna

Current User(s)

U.S. SOCOM

Source

Racal Communications Inc.

Operational Parameters

Number of Channels

100 memory preset channels

Transmitter Power Output Levels

5 levels: 0.1 W, 0.5 W, 1 W, 3 W, and 5 W (FM)
2 levels: 1 W and 5 W (AM)

Battery Options

Lithium-Ion rechargeable battery
nonrechargeable, disposable, and lithium cells

Battery Recharging Options

An ac powered single battery charger, ac/dc powered
6-way battery charger, and vehicular charger

Physical Parameters

Size

8.4 in x 2.6 in x 1.5 in (with battery)

Weight	30.6 oz (with battery)
Power Requirements	Not specified
External Power	120 V ac, 240 V ac, 12 V dc via chargers
<u>Available Accessories</u>	
Speaker-Microphones	Speaker microphone and audio connector is compatible with standard military audio devices
Carrying Cases	Radio system carrying bag
Battery Eliminators	SAPI accepts 1 V to 32 V
Vehicle Adapters	Vehicle adapter, radio holster, and radio system carrying bag
<u>Logistical Parameters</u>	
Programming	Menu selectable groups: user programmable from front panel menu, PC programmer, and radio to radio cloning
Repairs	Manufacturer
Decontamination	Not specified
Durability/Ruggedness	Immiscibility: 20 m maritime version and 2 m urban version
Environmental Conditions	-22 °F to 140 °F Humidity: 95 % noncondensing
Unit Cost	Not specified
Battery Cycle Life	>8 h with 10/10/80 cycle, 500 cycles
Rapid Charge Battery Cycle Life	>8 h with 10/10/80 cycle, 500 cycles
Maintenance Cost	1 yr warranty
Interface Capability	NVG compatible, specialized headsets and audio devices mate to standard military audio connector. RF interface to FM conventional, AM, Type 1, and UHF military satellite.
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes, operator and service
applicable Regulations	Not specified
Support Equipment	Batteries, battery holder, vehicle adapter, radio holster, radio system carrying bag, battery chargers, antennas, PC programmer, programmer/data cable, and cloning cable
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810E
Intrinsically Safe	No

General

Name

Racal Transceiver, Portable; MSHR (Miniature Secure Handheld Radio)

ID# 119



Model Number(s)

Miniature Secure Handheld Radio (MSHR)

Technology

Portable, conventional

Manufacturer

Racal Communications Inc.
5 Research Place
Rockville, Maryland 20850
301-948-4420 (Tel)
301-948-6371 (Fax)
www.racalcomm.com

POC: Steve Nichols
301-208-7654 (Tel)
steve.nichols@racalcomm.com

Secure Communication Capability

Yes, 3 levels embedded: U.S. Type 1 COMSEC, commercial COMSEC, SBCF DES encryption keyfill devices: CYZ 10 (DTD), KYK 13, KOI 18, KVL, and Racal PCP

Availability

Commercially available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 W FM LOS

Current User(s)

U.S. Department of Justice and U.S. Department of Defense

Source

Racal Communications Inc.

Operational Parameters

Number of Channels

100 programmable channels

Transmitter Power Output Levels

5 levels: 0.1 W, 0.5 W, 1 W, 2 W, and 5 W

Battery Options

Rechargeable Lithium-Ion battery

Battery Recharging Options

Single 6-way and 12 V dc vehicular battery charger

Physical Parameters

Size

7 in x 2.63 in x 0.88 in (with battery)

Weight

15.5 oz with battery and antenna

Power Requirements

Not specified

External Power	120 V ac, 240 V ac, 12 V dc, via chargers
<u>Available Accessories</u>	
Speaker-Microphones	Embedded speaker and microphone, and covert harness
Carrying Cases	Carrying bag
Battery Eliminators	No
Vehicle Adapters	Yes
<u>Logistical Parameters</u>	
Programming	Menu driven keypad entry, PC software download, radio-to-radio cloning, and keypad lockout
Repairs	Manufacturer
Decontamination	Not specified
Durability/Ruggedness	Water immersible to 2 m (20 m option available) acceleration: 20 G for 11 ms
Environmental Conditions	-22 °F to 140 °F Humidity: 95 % noncondensing
Unit Cost	Not specified
Battery Cycle Life	6 h @ 5/5/90 cycle, 500 cycles
Rapid Charge Battery Cycle Life	6 h @ 5/5/90 cycle, 500 cycles
Maintenance Cost	1 yr warranty
Interface Capability	Specialized headsets and audio devices wired through Racal custom side connector. RF interface to FM conventional (CTCSS, DCS), Type 1 encryption, and SBCF DES encryption.
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes, operator and service
applicable Regulations	Not specified
Support Equipment	Conforming body antenna, covert surveillance harness with wireless ear piece, carrying bag, PC programmer, data mode cable, cloning cable, key fill cable, test box, single, 6-way, and 12 V dc vehicular battery charger
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810E
Intrinsically Safe	No

General

Name

ID# 120

Racal Transceiver, Portable; 20 Meter MSHR



Model Number(s)

20 Meter Miniature Secure Handheld Radio

Technology

Portable, conventional

Manufacturer

Racal Communications Inc.
5 Research Place
Rockville, Maryland 20850
301-948-4420 (Tel)
301-948-6371 (Fax)
www.racalcomm.com

POC: Steve Nichols
301-208-7654 (Tel)
steve.nichols@racalcomm.com

Secure Communication Capability

Yes, 3 levels embedded: U.S. Type 1 COMSEC, commercial COMSEC, SBCF DES encryption keyfill devices: CYZ 10 (DTD), KYK 13, KOI 18, KVL, and Racal PCP

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 W FM LOS

Current User(s)

Navy SPECWAR, COCOM

Source

Racal Communications Inc.

Operational Parameters

Number of Channels

100 programmable channels

Transmitter Power Output Levels

5 levels: 0.1W, 0.5 W, 1 W, 2 W, and 5 W

Battery Options

Lithium-Ion rechargeable battery

Battery Recharging Options

Single, 6-way battery, and 12 V dc vehicular charger

Physical Parameters

Size

7.3 in x 2.6 in x 1.2 in (with battery)

Weight

24.5 oz with battery and antenna

Power Requirements

Not specified

External Power

120 V ac, 240 V ac, 12 V dc via chargers

Available Accessories

Speaker-Microphones
Carrying Cases
Battery Eliminators
Vehicle Adapters

1 m submersible speaker microphone and diver headset
Carrying bag
No
Yes

Logistical Parameters

Programming
Repairs
Decontamination
Durability/Ruggedness
Environmental Conditions
Unit Cost
Battery Cycle Life
Rapid Charge Battery Cycle Life
Maintenance Cost
Interface Capability

Menu driven keypad entry, PC software download, radio-to-radio cloning, and keypad lockout
Manufacturer
Not specified
Submersible to 20 m
acceleration: 20 G for 11 ms
-22 °F to 140 °F
Humidity: 95 % noncondensing
Not specified
6 h @ 5/5/90 cycle, 500 cycles
6 h @ 5/5/90 cycle, 500 cycles
1 yr warranty
Specialized headsets and audio devices wired through Rascal custom side connector. RF interface to FM conventional (CTCSS, DCS), Type 1 encryption, and SBCF DES encryption.

Special Requirements

Operator Skills Required
Operator Training Requirements
Training Available
Manuals Available
applicable Regulations
Support Equipment

Average
Average
Yes
Yes, operator and service
Not specified

Warranty
Mil Spec/Mil-Std Ratings
Intrinsically Safe

20 m submersible diver headset, submersible miniature headset, 1 m submersible speaker microphone, carrying bag, PC programmer, data mode cable, cloning cable, key fill cable, test box, single, 6-way, and 12 V dc vehicular battery charger
1 yr
Meets Mil Spec 810E
No

General

Name

ID# 121

Racal Transceiver, Portable; Racal 25



Model Number(s)

Racal 25

Technology

Portable, conventional

Manufacturer

Racal Communications Inc.
5 Research Place
Rockville, Maryland 20850
301-948-4420 (Tel)
301-948-6371 (Fax)
www.racalcomm.com

POC: Steve Nichols
301-208-7654 (Tel)
steve.nichols@racalcomm.com

Secure Communication Capability

Yes, embedded; SBCF DES, OFB DES for project 25 digital channels; keyfill devices: KVL (Motorola), and Racal PC programmer

Availability

Commercially available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 W FM LOS

Current User(s)

U.S. Department of Justice, U.S. Department of Interior, U.S. Navy, and U.S. Army

Source

Racal Communications Inc.

Operational Parameters

Number of Channels

16 quick select via rotary channel selector
48 quick select via toggle and rotary channel selector
256 selectable from the keypad, and 16 zones of 16 channels

Transmitter Power Output Levels

5 levels: 0.1 W, 0.5 W, 1 W, 2 W, and 5 W (programmable)

Battery Options

Lithium-Ion rechargeable battery, AA alkaline cassette (requires 10 "AA" disposable batteries)

Battery Recharging Options

An ac powered single battery charger, ac powered 6-way battery charger, ac/dc powered 6-way battery charger. Vehicular charger in development.

Physical Parameters

Size	7.8 in x 2.6 in x 1.05 in (with battery)
Weight	16.7 oz
Power Requirements	Not specified
External Power	No
<u>Available Accessories</u>	
Speaker-Microphones	Handheld speaker/microphone, surveillance harness, other headsets and audio devices via 6 pin Hirose connector
Carrying Cases	Nylon duty case, leather duty case, and nylon tactical carrying case
Battery Eliminators	Yes
Vehicle Adapters	In development, 40 W, 110 W
<u>Logistical Parameters</u>	
Programming	PC/cloning/front panel keyboard
Repairs	Manufacturer
Decontamination	Not specified
Durability/Ruggedness	Rugged metal housing. Submersible to 2 m.
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	>11 h @ 5/5/90 cycle, 500 cycles
Rapid Charge Battery Cycle Life	>11 h @ 5/5/90 cycle, 500 cycles
Maintenance Cost	1 yr warranty
Interface Capability	Specialized headsets and audio devices mate to 6 pin Hirose connector on audio adapter. RF interface to FM conventional (CTCSS DCS), project 25 digital, DES encrypter, and simultaneous multi-mode capability.
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	FCC type accepted and Canadian type approval
Support Equipment	Carrying cases, hand held speaker/microphone, battery chargers, alkaline cassette, narrowband high gain antenna, PC programmer, and cloning cable
Warranty	1 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810E
Intrinsically Safe	Pending

General

Name

BK Base Station; EBU Series

ID# 122



Model Number(s)

EBU-Series

Technology

Conventional base station

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

400 MHz to 520 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

2 channels

Transmitter Power Output Levels

30 W to 125 W

Battery Options

Not applicable

Battery Recharging Options

None

Physical Parameters

Size

19 in x 14 in x 17.3 in

Weight

50 lb to 70 lb

Power Requirements

12 V dc/24 V dc/48 V dc

External Power

No

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

No

Battery Eliminators

No

Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	U.S. Forest Service vibrations test
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Experienced
Operator Training Requirements	Experienced
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	2 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test
Intrinsically Safe	No

General

Name

BK Radio FM Transceiver; EMH 599 2X

ID# 123



Model Number(s)

EMH 599 2X

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

210 channels continuously selected or programmable for selection groups

Transmitter Power Output Levels

50 W can be turned down to 15 W for low power applications

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6 in x 9.4 in x 2.1 in

Weight

5 lb

Power Requirements

13.6 V dc to 13.8 V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician) programmable - PC friendly
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Meets U.S. Forest Service vibrations and TIA/EIA-603 specifications
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$1.2K to \$1.4K
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Mobile installation kit and choice of microphone with hang-up box
Warranty	2 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test
Intrinsically Safe	No

General

Name

BK Synthesized FM Mobile Radio; EMV

ID# 124



Model Number(s)

EMV 499 0A
EMV 199 0A

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

403 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

114 channels

Transmitter Power Output Levels

EMV 499 0A: 10 W to 40 W and EMV 199 0A: 1 W to 4 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6 in x 8 in x 2.1 in

Weight

8 lb

Power Requirements

13.6 V dc

External Power

No

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Meets U.S. Forest Service vibration and EIA RS-316B vibration and shock specifications
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$1.2K to \$1.4K
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Mobile installation kit and choice of microphone with hang-up box
Warranty	2 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test
Intrinsically Safe	No

General

Name

***BK Synthesized FM E Series DES EPH 599,
EPU 499 and EPV 499 Models***

ID# 125



Model Number(s)

EPH

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

DES encryption keys: 3 encryption codes in memory

Availability

Available

Frequency Range

148 MHz to 174 MHz, 403 MHz to 457 MHz, and
450 MHz to 512 MHz

**Number of Personnel Supported by
System**

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

14 channels/210 channels

Transmitter Power Output Levels

Hi: 5 W; low: 4 W

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH
battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac and 242 V ac
Charge Smart NiMH desktop charger

Physical Parameters

Size

2.6 in x 1.5 in x 6.6 in

Weight

20 oz (standard)

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume
switch, coiled cord, and earphone jack

Carrying Cases	Full leather cover that fits deluxe leather holster with belt loop/swivel
Battery Eliminators	Not specified
Vehicle Adapters	No
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	U.S. Forest Service vibration, EIA RS-316B vibration, and shock specifications
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$2.2K to \$2.3K
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	121 V ac dual rate desktop charger (fast-charge and trickle-charge). Charges all NiCad battery packs in 1 h or less.
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Batteries and power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling and channel options (factory installs)
Warranty	2 yr (can be extended up to 5 yr)
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test
Intrinsically Safe	Depends on battery option

General

Name

***BK Synthesized FM Portable Radio; E Series,
EPH 51 and 52 Models***

ID# 126



Model Number(s)

EPH

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Frequency Range

Available

Number of Personnel Supported by System

148 MHz to 174 MHz

Geographic Coverage

Unlimited

Current User(s)

Not specified

Source

Not specified

Relm

Operational Parameters

Number of Channels

14 channels/210 channels

Transmitter Power Output Levels

5/2 W RF power

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac and 242 V ac Charge Smart NiMH desktop charger

Physical Parameters

Size

2.6 in x 1.5 in x 6.6 in

Weight

20 oz

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume switch, coiled cord, and earphone jack

Carrying Cases	Full leather cover that fits deluxe leather holster with belt loop/swivel
Battery Eliminators	Not specified
Vehicle Adapters	No
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	U.S. Forest Service vibration and EIA RS-316B vibration and shock specifications
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$675 to \$1.2K
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	121 V ac dual rate desktop charger (fast-charge/trickle-charge). Charges all NiCad battery packs in 1 h or less.
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Batteries and power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling and channel options (factory installs)
Warranty	2 yr (can be extended up to 5 yr)
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test
Intrinsically Safe	Depends on battery option

General

Name

***BK Synthesized FM Portable Radio; E Series,
EPI 510 Models***

ID# 127



Model Number(s)

EPI

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

136 MHz to 160 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

14 channels/210 channels

Transmitter Power Output Levels

Hi: 5 W; low: 2 W

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac and 242 V ac Charge Smart NiMH desktop charger

Physical Parameters

Size

2.6 in x 1.5 in x 6.6 in

Weight

20 oz (standard)

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume switch, coiled cord, and earphone jack

Carrying Cases	Full leather cover that fits deluxe leather holster with belt loop/swivel
Battery Eliminators	Not specified
Vehicle Adapters	No
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	U.S. Forest Service vibration, EIA RS-316B vibration, and shock specifications
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$800 to \$1.1K
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	121 V ac dual rate desktop charger (fast-charge/trickle-charge). Charges all NiCad battery packs in 1 h or less.
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Batteries/power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling/channel options (factory installs)
Warranty	2 yr (can be extended up to 5 yr)
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test
Intrinsically Safe	Depends on battery option

General

Name

***BK Synthesized FM Portable Radio; E Series, EPU
& EPV 414 and 499 Models***

ID# 128



Model Number(s)

EPV

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

403 MHz to 457 MHz (EPV)
450 MHz to 512 MHz (EPU)

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

14 channels/210 channels

Transmitter Power Output Levels

4 W

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac/242 V ac Charge Smart NiMH desktop charger

Physical Parameters

Size

2.6 in x 1.5 in x 6.6 in

Weight

20 oz

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume switch, coiled cord, and earphone jack

Carrying Cases

Full leather cover that fits deluxe leather holster with belt loop and swivel

Battery Eliminators

Not specified

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

U.S. Forest Service vibrations test

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$910 to \$1.3K

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

121 V ac dual rate desktop charger (fast-charge and trickle-charge). Charges all NiCad battery packs in 1 h or less.

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

Not specified

Support Equipment

Batteries and power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling/channel options (factory installs)

Warranty

2 yr (can be extended up to 5 yr)

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test

Intrinsically Safe

No

General

Name

BK Repeater; ERU Series

ID# 129



Model Number(s)

ERU-Series

Technology

Conventional repeater

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

400 MHz to 520 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

Hi: 50 W; low: 35 W RF power

Battery Options

Not applicable

Battery Recharging Options

None

Physical Parameters

Size

19 in x 3.5 in x 14.2 in

Weight

19.8 lb

Power Requirements

13.8 V dc

External Power

No

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

No

Battery Eliminators

No

Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	U.S. Forest Service vibrations test
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	No
<u>Special Requirements</u>	
Operator Skills Required	Experienced
Operator Training Requirements	Experienced
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	2 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test
Intrinsically Safe	No

General

Name

BK Radio FM Transceiver, Portable; G Series, GPH Models

ID# 130



Model Number(s)

GPH21, GPH51

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

16 channels/240 channels

Transmitter Power Output Levels

5 W

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac/242 V ac Charge Smart NiMH desktop charger

Physical Parameters

Size

2.55 in x 15 in x 6.6 in (with standard battery)

Weight

20.8 oz (with standard battery)

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume, coiled cord, and earphone jack

Carrying Cases

Leather case with belt loop (optional viewing window)

Battery Eliminators	Not specified
Vehicle Adapters	Not specified
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$750 to \$1.2K
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	121 V ac dual rate desktop charger (fast-charge/trickle-charge). Charges all NiCad battery packs in 1 h or less.
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Batteries/power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling/channel options (factory installs)
Warranty	2 yr (can be extended up to 5 yr)
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test
Intrinsically Safe	Depends on battery option

General

Name

ID# 131

BK Radio Airborne Transceiver; KFM 985



Model Number(s)

KFM 985

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

Downband VHF: 136 MHz to 160 MHz
VHF: 148 MHz to 174 MHz
UHF: 450 MHz to 512 MHz
Downband UHF: 403 MHz to 457 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

Up to 210 channels

Transmitter Power Output Levels

VHF: 4 W
UHF: 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

3 in x 5.8 in x 5.3 in

Weight

2 lb

Power Requirements

14 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	U.S. Forest Service vibrations test
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Not specified
Warranty	2 yr
Mil Spec/Mil-Std Ratings	U.S. Forest Service vibrations test
Intrinsically Safe	No

General

Name

Relm Mobile Radio; 256NB

ID# 132

Picture Not Available

Model Number(s)

256NB

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

150 MHz to 162 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

1 channel/16 channels

Transmitter Power Output Levels

25 W minimum

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2.75 in x 6.5 in x 10.75 in

Weight

4.4 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Not specified
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified

Special Requirements

Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Mobile hand microphone, 5 A dc power cord, telephone handset with hookswitch, mounting bracket, DTMF encoder microphone, alternator filter, desk microphone, and external speaker
Warranty	1 yr
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	No

General

Name

ID# 133

Relm Portable Radios; MPU08 (UHF)



Model Number(s)

MPU08 (UHF)

Technology

Portable

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

450 MHz to 480 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

8 channels

Transmitter Power Output Levels

4 W

Battery Options

700 mA battery
1000 mA battery

Battery Recharging Options

Desk (rapid rate), 6 unit multi-charger, and wall charger

Physical Parameters

Size

6.4 in x 2.5 in x 1.4 in

Weight

15.5 oz

Power Requirements

Not specified

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

Carrying Cases

Carrying case

Battery Eliminators	Not specified
Vehicle Adapters	No
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Nor specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$458
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Rapid rate desk charger
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Minimal
Operator Training Requirements	Minimal
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Battery charger, battery pack, speaker microphone, carry case, rubber antenna, 12.5 channel space conversion kit for MPV and MPU, cloning cable, and PC programming kit
Warranty	Individual warranty provided with each product
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	No

General

Name

ID# 134

Relm Portable Radios; MPU32 (UHF)



Model Number(s)

MPU 32 (UHF)

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

403 MHz to 430 MHz and 450 MHz to 480 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

32 channels/64 channels, option available

Transmitter Power Output Levels

4 W

Battery Options

700 mA battery
1000 mA battery

Battery Recharging Options

Desk (rapid rate), 6 unit multi-charger, and wall charger

Physical Parameters

Size

6.4 in x 2.5 in x 1.4 in

Weight

15.5 oz

Power Requirements

10.8 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

Carrying Cases

Carrying case

Battery Eliminators	Not specified
Vehicle Adapters	No
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$473
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Rapid rate desk charger
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Battery charger, battery pack, speaker microphone, carry case, rubber antenna, 12.5 channel space conversion kit for MPV and MPU, cloning cable, and PC programming kit
Warranty	Individual warranty provided with each product
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	No

General

Name

ID# 135

Relm Portable Radios; MPV32 (VHF)



Model Number(s)

MPV 32 (VHF)

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

32 channels/64 channels, option available

Transmitter Power Output Levels

5 W

Battery Options

700 mA battery
1000 mA battery

Battery Recharging Options

Desk (rapid rate), 6 unit multi-charger, and wall charger

Physical Parameters

Size

6.4 in x 2.5 in x 1.4 in

Weight

15.5 oz

Power Requirements

10.8 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

Carrying Cases

Carrying case

Battery Eliminators	Not specified
Vehicle Adapters	No
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$473
Battery Cycle Life	Not specified
Rapid Charge Battery Cycle Life	Rapid rate desk charger
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Battery charger, battery pack, speaker microphone, carry case, rubber antenna, 12.5 channel space conversion kit for MPV and MPU, cloning cable, and PC programming kit
Warranty	Individual warranty provided with each product
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	No

General

Name

Relm Mobile Radios; SMV2516

ID# 136



Model Number(s)

SMV2516 UHF

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

450 MHz to 482 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

Either 16 channel or 99 channel formats with scan capability

Transmitter Power Output Levels

25 W minimum at 7 MHz
12.5 W minimum at 10 MHz

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1.5 in x 5.8 in x 7 in

Weight

2.4 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Specially designed metal covers and a die-cast metal frame offer unparalleled structural durability and protection
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$550
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	FCC Type Acceptance
Support Equipment	DTMF Decoder, external speaker 12 A dc power cord, mobile hand microphone, programmer desk microphone, DTMF Touch-Tone* Microphone, and two-tone sequential decoder
Warranty	1 yr
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	No

General

Name

Relm Mobile Radios; SMV4016

ID# 137



Model Number(s)

SMV4016 VHF

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

150 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

Either 16 channel or 99 channel formats with scan capability

Transmitter Power Output Levels

40 W minimum at 7 MHz
20 W minimum at 10 MHz

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1.5 in x 5.8 in x 7 in

Weight

2.4 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Specially designed metal covers and a die-cast metal frame offer unparalleled structural durability and protection
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$548
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	FCC Type Acceptance
Support Equipment	DTMF Decoder, external speaker 12 A dc power cord, mobile hand microphone, programmer desk microphone, DTMF Touch-Tone* Microphone, and two-tone sequential decoder
Warranty	1 yr
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	No

General

Name

Maxon VHF/UHF RF Link Module; SD-125

ID# 138



Model Number(s)

SD-125

Technology

Link (repeater), conventional RF Link Module

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

148 MHz to 174 MHz and 440 MHz to 470 MHz

Number of Personnel Supported by System

Not applicable

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

Not specified

Battery Recharging Options

Not specified

Physical Parameters

Size

4.6 in x 2.4 in x 1.2 in

Weight

8 oz

Power Requirements

9 V dc to 18 V dc

External Power

No

Available Accessories

Speaker-Microphones	Not applicable
Carrying Cases	Not specified
Battery Eliminators	Not specified
Vehicle Adapters	Not specified
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Standard use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	5/5/90 cycle
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Available
Warranty	2 yr
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	No

General

Name

Maxon Scanning Transceiver; SM-2000 Series

ID# 139



Model Number(s)

SM-2150 VHF
SM-2450 UHF

Technology

Mobile, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

VHF: 148 MHz to 174 MHz
UHF: 440 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

UHF: 4 channels (programmable in 5 kHz steps)
VHF: 4 channels (programmable in 6.25 kHz steps)

Transmitter Power Output Levels

1 W to 3 W, low
1 W to 25 W, high

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 7 in x 6.3 in

Weight

3.4 lb (with microphone)

Power Requirements

13.8 V dc negative ground

External Power

Not applicable

Available Accessories

Speaker-Microphones	Not applicable
Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable

Logistical Parameters

Programming	Dealer/User (authorized technician), programmable - PC friendly
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Case material is die-cast aluminum
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified

Special Requirements

Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	FCC Certified and IC Certification
Support Equipment	Heavy duty remote speaker, heavy duty mobile microphone, base station microphone, power supply (110 V ac/220V ac, 10 A, 50 % duty), and power supply cover
Warranty	2 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	No

General

Name

ID# 140

Maxon Scanning Transceiver; SM-4000 Series



Model Number(s)

SM-4150 VHF
SM-4450 UHF

Technology

Mobile, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

Secure Communication Capability

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Availability

No

Available

Frequency Range

VHF: 136 MHz to 150 MHz (L)
150 MHz to 165 MHz (M)
160 MHz to 174 MHz (H)
UHF: 450 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

16 channel capability

Transmitter Power Output Levels

40 W (adjustable)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 6 in x 8.3 in

Weight

4.2 lb (with microphone)

Power Requirements

13.8 V dc negative ground

External Power	Not applicable
<u>Available Accessories</u>	
Speaker-Microphones	Not applicable
Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not specified
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Case material is die-cast aluminum
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
Applicable Regulations	FCC Compliance, FCC Identifier, and IC Certification
Support Equipment	Heavy duty remote speaker, heavy duty mobile microphone, base station microphone, and power supply (110 V ac, 10 A, 50 % duty)
Warranty	2 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	No

General

Name

Maxon VHF/UHF Transceiver, Portable; SP-120

ID# 141



Model Number(s)

SP-120

Technology

Portable, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

Yes; after market (Midian Electronics)
VPU II Inversion Voice Scrambler
TVS-2 Rolling Code Scrambler

Availability

Available

Frequency Range

VHF: 148 MHz to 174 MHz
UHF: 440 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

4 channels

Transmitter Power Output Levels

2 W

Battery Options

NiCad 7.5V dc (with 700 mAh battery or with 1200 mAh battery)

Battery Recharging Options

6-unit gang charger (regular and rapid), dual slot/dual rate desktop charger, and pedestal charger

Physical Parameters

Size

5.6 in x 2.3 in x 1.7 in (with battery)

Weight

15 oz (with battery)

Power Requirements	NiCad 7.5 V dc
External Power	No
<u>Available Accessories</u>	
Speaker-Microphones	Deluxe speaker/microphone, ear speaker microphone, voice operated mini-VOX control and headset, and 2 wire palm microphone
Carrying Cases	Leather case with swivel and nylon case
Battery Eliminators	Not specified
Vehicle Adapters	Not specified
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician) programmable - PC friendly
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Manufactured with a die-cast aluminum frame and tough-tested polycarbonate cabinet. Can work in all environments.
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	> 8 h
Rapid Charge Battery Cycle Life	6–unit gang rapid charger, dual slot/dual rate "smart" desktop charger
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	FCC Certified for use in USA and its possessions, and IC approved for sale in Canada
Support Equipment	Battery pack, VHF antenna, UHF antenna, battery chargers, speaker/microphone, palm microphone, coil-cord earphone, ear speaker microphone, leather case, and nylon case
Warranty	2 yr
Mil Spec/Mil-Std Ratings	No
Intrinsically Safe	No

General

Name

***Maxon VHF/UHF Transceiver, Portable;
SP-130/SP-140***

ID# 142



Model Number(s)

SP-130/SP-140

Technology

Portable, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

Yes; after market (Midian Electronics)
VPU II Inversion Voice Scrambler
TVS-2 Rolling Code Scrambler

Availability

Available

Frequency Range

VHF: 148 MHz to 174 MHz
UHF: 440 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

4 channels/16 channels programmable

Transmitter Power Output Levels

Hi: 5 W; low: 1 W programmable per channel

Battery Options

NiCad 7.5V dc

Battery Recharging Options

4-station conditioning charger (110 V/220 V), 6-unit gang charger (regular and rapid), dual slot/dual rate "smart" charger, and pedestal charger

Physical Parameters

Size

5.6 in x 2.3 in x 1.7 in (with battery)

Weight

16.4 oz (with battery)

Power Requirements	7.5 V dc
External Power	No
<u>Available Accessories</u>	
Speaker-Microphones	Deluxe speaker/microphone with angled connector, 2 wire palm microphone, voice operated mini VOX control and headset, and ear speaker microphone
Carrying Cases	Leather case with swivel and nylon case
Battery Eliminators	Not specified
Vehicle Adapters	Not specified
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician) programmable - PC friendly
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Manufactured with a die-cast aluminum frame and tough-tested polycarbonate cabinet. Can adapt to tough work conditions like dust, vibration, and humidity.
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	> 8 h
Rapid Charge Battery Cycle Life	6–unit gang rapid charger, dual slot/dual rate "smart" desktop charger
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	FCC Certified for use in USA and its possessions, and IC approved for sale in Canada
Support Equipment	Battery pack, VHF antenna, UHF antenna, battery chargers, speaker and microphone, palm microphone, coil-cord earphone, ear speaker microphone, leather case, and nylon case
Warranty	2 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	SP140 Model only

General

Name

Maxon VHF/UHF Transceiver, Portable; SP-200

ID# 143



Model Number(s)

SP-200

Technology

Portable, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

UHF: 403 MHz to 430 MHz
VHF: 136 MHz to 174 MHz
800 MHz: 806 MHz to 824 MHz and 851 MHz to 869 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

199 channel capability, up to 13 scan groups of up to 16 channels each

Transmitter Power Output Levels

1 W or 5 W \pm 10 %

Battery Options

1350 mAh Ni-MH battery

Battery Recharging Options

Rapid rate charger

Physical Parameters

Size

4.25 in x 2.31 in x 1.5 in

Weight

7.65 oz (with battery)

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones

Ear bud speaker with in-line P-T-T and microphone, lapel speaker/microphone with ear jack, and ear speaker with cord

Carrying Cases

Not specified

Battery Eliminators

Not specified

Vehicle Adapters

Not specified

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable - PC friendly

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Industrial use, die cast aluminum chassis, and polycarbonate case

Environmental Conditions

-22 °F to 140 °F

Unit Cost

Not specified

Battery Cycle Life

8 h at 5/5/90 cycle

Rapid Charge Battery Cycle Life

Rapid rate charger

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

FCC Certified for use in USA and its possessions, and IC approved for sale in Canada

Support Equipment

1350 mAh Ni-MH battery pack, UHF antenna, VHF antenna, rapid rate charger, speaker microphone, and cord

Warranty

2 yr

Mil Spec/Mil-Std Ratings

No

Intrinsically Safe

No

General

Name

Maxon VHF/UHF Transceiver, Portable; SP-300

ID# 144



Model Number(s)

SP-300

Technology

Portable, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

UHF: 403 MHz to 430 MHz
VHF: 136 MHz to 174 MHz
800 MHz: 806 MHz to 824 MHz and 851 MHz to 869 MHz
Unlimited

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

4 channel/16 channel models

Transmitter Power Output Levels

Hi: 5 W; low: 1 W programmable per channel

Battery Options

NiCad 7.5 V dc
Bu-MH 1350 mAh

Battery Recharging Options

6-unit gang charger, 6-unit regular and fast charger, dual slot and dual rate "smart" charger, and pedestal charger

Physical Parameters

Size

5.6 in x 2.3 in x 1.7 in (with battery)

Weight

16.4 oz (with battery)

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with locking connector

Carrying Cases

Leather case with swivel and nylon case

Battery Eliminators

Not specified

Vehicle Adapters

Not specified

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable - PC friendly

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Die cast chassis, polycarbonate case, and tough industrial radio

Environmental Conditions

-22 °F to 140 °F

Unit Cost

Not specified

Battery Cycle Life

> 8 h

Rapid Charge Battery Cycle Life

6–unit gang rapid charger, dual slot /dual rate "smart" charger

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

FCC Certified for use in USA and its possessions, and IC approved for sale in Canada

Support Equipment

1350 mAh Ni-MH battery pack, UHF antenna, VHF antenna, rapid rate charger speaker microphone, and cord

Warranty

2 yr

Mil Spec/Mil-Std Ratings

No

Intrinsically Safe

No

General

Name

Maxon UHF Transceiver, Portable; SP-150U

ID# 145



Model Number(s)

SP-150U

Technology

Portable, conventional and trunked

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

440 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

16 conventional channels

Transmitter Power Output Levels

1 W to 5 W \pm 10 %

Battery Options

NiCad battery
Ni-MH battery

Battery Recharging Options

4-station conditioning charger, dual slot/dual rate "smart" desktop charger, and pedestal charger

Physical Parameters

Size

5.6 in x 2.3 in x 1.7 in

Weight

16.4 oz (with battery)

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones	Speaker/microphone
Carrying Cases	Leather case, nylon case, and spring loaded belt clip
Battery Eliminators	Not specified
Vehicle Adapters	Not specified

Logistical Parameters

Programming	Dealer/User (authorized technician)
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Industrial use
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	8 h at 5/5/90 cycle
Rapid Charge Battery Cycle Life	Dual slot/dual rate "smart" desktop charger
Maintenance Cost	Not specified
Interface Capability	Not specified

Special Requirements

Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	FCC Certified for use in USA and its possessions, and IC approved for sale in Canada
Support Equipment	Battery pack, UHF antenna, battery chargers, speaker and microphone, leather case, and nylon case
Warranty	2 yr
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	No

General

Name

***Vertex Dual Band (VHF & UHF) Transceiver,
Portable; FTH-2070***

ID# 146



Model Number(s)

FTH-2070A

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes with optional encryption module

Availability

Available

Frequency Range

VHF: 150 MHz to 174 MHz; UHF: 409 MHz to 450 MHz,
450 MHz to 480 MHz, or 470 MHz to 490 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 5 W; low: 2 W

Battery Options

12 V NiCad 600 mA or 1200 mA (5 W); 12 V NiCad
1000 mA and NiCad intrinsically safe

Battery Recharging Options

Rapid vehicular charger and desktop rapid charger

Physical Parameters

Size

2.6 in x 7.9 in x 1.7 in

Weight	28.8 oz
Power Requirements	12 V dc
External Power	No
<u>Available Accessories</u>	
Speaker-Microphones	Yes—heavy duty
Carrying Cases	Yes
Battery Eliminators	Yes
Vehicle Adapters	6—unit multi-charger
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician) programmable
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Environmental Conditions	-22 °F to 140 °F
Unit Cost	\$1.3K
Battery Cycle Life	8.1 h/7.0 h (VHF/UHF) 5/5/90 cycle
Rapid Charge Battery Cycle Life	Not specified
Maintenance Cost	Not specified
Interface Capability	Not specified
<u>Special Requirements</u>	
Operator Skills Required	Minimal
Operator Training Requirements	Minimal
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Chargers, batteries, microphones, cases, DTMF keypad, speaker microphone, belt swivel attachment, and cables with software
Warranty	3 yr on transceivers and 1 yr on accessories
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	Yes

General

Name

Vertex FTL Series; FTL-1011 (VHF LowBand)

ID# 147



Model Number(s)

FTL-1011 (VHF LowBand)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Voice inversion encryption available and high security rolling code encryption

Availability

Available

Frequency Range

29.7 MHz to 37 MHz
37 MHz to 50 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 24 channels, and 99 channels

Transmitter Power Output Levels

60 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6.3 in x 2 in x 7.1 in

Weight	3.3 lb
Power Requirements	13.8 V dc
External Power	Not applicable
<u>Available Accessories</u>	
Speaker-Microphones	Not applicable
Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician) programmable - PC friendly
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Durable chassis construction and heavy-duty heat sink
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Yes
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Integrated power supply (117 V ac), integrated power supply (220 V ac to 234 V ac), voice inversion encryption, high security rolling code encryption, two-tone sequential decoder, dc line filter, microphones, external speakers, audio output option, PC based dispatch system, VX–Trunk I (II) Trunking Mobile Logic Board, remote mount kit, and radio to computer programming cable with software
Warranty	3 yr on transceivers and 1 yr on accessories
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	No

General

Name

Vertex FTL Series; FTL-1011H (VHF LowBand HiPower)

ID# 148



Model Number(s)

FTL-1011H (VHF LowBand HiPower)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Voice inversion encryption available and high security rolling code encryption

Availability

Available

Frequency Range

37 MHz to 50 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 24 channels, and 99 channels

Transmitter Power Output Levels

110 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6.3 in x 2 in x 11.6 in

Weight	7.9 lb
Power Requirements	13.8 V dc
External Power	Not applicable
<u>Available Accessories</u>	
Speaker-Microphones	Not applicable
Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician) programmable - PC friendly
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Durable chassis construction and heavy-duty heat sink
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Yes
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Integrated power supply (117 V ac), integrated power supply (220 V ac to 234 V ac), voice inversion encryption, high security rolling code encryption, two-tone sequential decoder, dc line filter, microphones, external speakers, audio output option, PC based dispatch system, VX-Trunk I (II) Trunking Mobile Logic Board, remote mount kit, and radio to computer programming cable with software
Warranty	3 yr on transceivers and 1 yr on accessories
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	No

General

Name

Vertex FTL Series; FTL-2011 (VHF HighBand)

ID# 149



Model Number(s)

FTL-2011 (VHF Highband)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Voice inversion encryption available and high security rolling code encryption

Availability

Available

Frequency Range

134 MHz to 160 MHz
148 MHz to 174 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 24 channels, and 99 channels

Transmitter Power Output Levels

40 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6.3 in x 2 in x 7.1 in

Weight	3.3 lb
Power Requirements	13.8 V dc
External Power	Not applicable
<u>Available Accessories</u>	
Speaker-Microphones	Not applicable
Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable
<u>Logistical Parameters</u>	
Programming	Dealer/User (authorized technician) programmable - PC friendly
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Durable chassis construction and heavy-duty heat sink
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Yes
<u>Special Requirements</u>	
Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Integrated power supply (117 V ac), integrated power supply (220 V ac to 234 V ac), voice inversion encryption, high security rolling code encryption, two-tone sequential decoder, dc line filter, microphones, external speakers, audio output option, PC based dispatch system, VX–Trunk I (II) Trunking Mobile Logic Board, remote mount kit, and radio to computer programming cable with software
Warranty	3 yr on transceivers and 1 yr on accessories
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	No

General

Name

Vertex FTL Series; FTL-7011 (UHF)

ID# 150



Model Number(s)

FTL-7011 (UHF)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Voice inversion encryption available and high security rolling code encryption

Availability

Available

Frequency Range

400 MHz to 440 MHz
450 MHz to 490 MHz
480 MHz to 512 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 24 channels, and 99 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size	6.3 in x 2 in x 7.1 in
Weight	3.3 lb
Power Requirements	13.8 V dc
External Power	Not applicable

Available Accessories

Speaker-Microphones	Not applicable
Carrying Cases	Not applicable
Battery Eliminators	Not applicable
Vehicle Adapters	Not applicable

Logistical Parameters

Programming	Dealer/User (authorized technician) programmable - PC friendly
Repairs	Dealer
Decontamination	Not specified
Durability/Ruggedness	Durable chassis construction and heavy-duty heat sink
Environmental Conditions	-22 °F to 140 °F
Unit Cost	Not specified
Battery Cycle Life	Not applicable
Rapid Charge Battery Cycle Life	Not applicable
Maintenance Cost	Not specified
Interface Capability	Yes

Special Requirements

Operator Skills Required	Average
Operator Training Requirements	Average
Training Available	Yes
Manuals Available	Yes
applicable Regulations	Not specified
Support Equipment	Integrated power supply (117 V ac), integrated power supply (220 V ac to 234 V ac), voice inversion encryption, high security rolling code encryption, two-tone sequential decoder, dc line filter, microphones, external speakers, audio output option, PC based dispatch system, VX-Trunk I (II) Trunking Mobile Logic Board, remote mount kit, and radio to computer programming cable with software
Warranty	3 yr on transceivers and 1 yr on accessories
Mil Spec/Mil-Std Ratings	Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe	No