MOTOROLA

GTR 8000 Base Radio

FEATURES

- Supports Motorola's Integrated Voice and Data Systems (IV&D) and 25 kHz High Performance Data (HPD) Systems
- Compact and integrated design for versatile and efficient use of site space
- Lightweight
- Occupies only 3 rack units of space
- Supports both AC and DC power
- Provides battery revert and charging for backup power supply

Functionally separate modules:

Field Replacement Unit (FRU)

- Hot swappable FRUs
- Designed for simple installation and serviceability
- Mountable in an open rack or cabinet
- Eliminates need for field alignment through configuration in the factory

GTR 8000 Base Radio supports Motorola's Multisite systems and High Performance Data systems. It can also be integrated with Quantars and STR 3000s to add channels to an existing IV&D site. The modular software design coupled with the Software Download Manager enhances the ability for future upgrades. The GTR 8000 Base Radio ships with a transceiver, power supply and a power amplifier. The power supply allows operation from both AC and DC power. Also, standard battery revert and charging eliminates the need for an Uninterruptible Power Supply (UPS) in many installations.

One GTR 8000 Base Radio is needed per channel at each site. The stand alone base radio only occupies 3 rack units of space allowing for efficient use of expensive site space.

GENERAL PERFORMANCE	HPD	IV&D
Model Number	T7039A	T7039A
Size (HxWxD)	5.25″ x 19″ x 18″ (133x483x457mm)	5.25″ x 19″ x 18″ (133x483x457mm)
Weight	45 lbs (20 kg)	45 lbs (20 kg)
Temperature Range	–22 to 140 °F (–30 to 60°C)	–22 to 140 °F (–30 to 60°C)
Power Requirements	AC: 90-264 VAC, 47-63 Hz DC: 43.2-60 VDC	AC: 90-264 VAC, 47-63 Hz DC: 43.2-60 VDC
Power Consumption	475 W	Repeater Site: 500W Simulcast (Multicast): 550 W
Input/Output Impedance	50 ohms	50 ohms
Antenna Connectors	Tx: N female Rx: BNC female	Tx: N female Rx: BNC female
Channel Spacing	25 kHz	12.5 kHz
Modulation	Tx: 64QAM, 16QAM, QPSK Rx: 64QAM, 16QAM, QPSK	Tx: C4FM, LSM Rx: C4FM
Frequency Stability	External Reference	

TRANSMITTER	HPD	IV&D
Frequency Range	762-792, 851-870 MHz	762-776, 851-870 MHz
Power output	2-50 W	2-100 W
Electronic Bandwidth	Full Bandwidth	Full Bandwidth
Modulation Fidelity	10%	5%
Spurious and Harmonic Emissions Attenuation	90 dB	90 dB
Emissions Designators	17K7D7D	8K70D1W, 8K10F1E

RECEIVER	HPD	IV&D
Frequency Range	792-825 MHz	792-825 MHz
Sensitivity 1% Bit Error Rate Static (BER) 64 QAM	–98 dBm	NA
Sensitivity 1% Bit Error Rate Static (BER) 16 QAM	–104 dBm	NA
Sensitivity 1% Bit Error Rate Static (BER) QPSK	–111 dBm	NA
Sensitivity 1% Bit Error Rate Static (BER) C4FM	NA	–118 dBm
Intermodulation Rejection*	80 dB*	80 dB
Adjacent Channel Rejection*	50 dB*	60 dB
Spurious and Image Response Rejection*	85 dB*	85 dB 100 dB**
Intermediate Frequencies	1st: 73.35 MHz 2nd: 2.16 MHz	1st: 73.35 MHz 2nd: 2.16 MHz

* Reference signal is QPSK.
** Optional Preselector

FCC TYPE ACCEPTANCE

FCC Designation	Frequency Range	Type	Power Output	Type Acceptance Number
	762-792 MHz	Transmitter	HPD: 2-50 W IV&D: 2-100 W	ABZ89FC5812
	851-870 MHz	Transmitter	HPD: 2-50 W IV&D: 2-100 W	ABZ89FC5810
	792-825 MHz	Receiver	N/A	ABZ89FR5811

All values subject to change without notice. IMPORTANT NOTICE: The features and facilities described in this brochure should be used for indicative purposes only. Availability of features and facilities will be dependent on the feature set supported by the system on which these units are used and on Motorola's scheduled product development program.

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