

# AM-1077/AM2100/MT1060MM

## VHF Tactical Support Amplifier



### AM-1077 50W VHF Amplifier

The AM-1077 is a 50W VHF linear RF amplifier designed for use with exciters operating in the 30 to 88 MHz frequency band to form high-power VHF systems. The amplifier interfaces seamlessly with Datron's PRC1077 VHF transceiver and MT-1077-24 mount with AM1077ADPT adapter and also can be used with any VHF transmitter having an appropriate power output and compatible DC power and control interface including the AN/PRC77.

The AM-1077's rugged, compact, and light weight design make it ideal for mobile or base station systems. It is shock resistant and moisture proof per MIL-STD-810. It's linearity rating ensures high performance for all VHF voice and high-speed data applications. It is entirely solid state, broadband, and operates from +24Vdc, or +12Vdc with the AM1077CONV DC/DC converter.

The AM-1077 employs harmonic filters to provide high attenuation of transmitter harmonics and spurious emissions. It includes automatic level control (ALC) to maintain a stable RF output over the entire operating frequency range and over fluctuating temperatures. In addition, the AM-1077 provides protection against load mismatch and open and short circuit conditions at the antenna port.

The amplifier is suitable for use with Datron's PRC1077 transceiver with the appropriate broadband antenna.

- 30 to 87.975 MHz
- +12VDC or +24VDC Operation
- Full Antenna VSWR Protection
- Over Temperature/Current Protection
- Compact, Light Weight



## **AM2100** 75W VHF Amplifier

The AM2100 is a 75W VHF linear RF Amplifier designed for use with exciters operating in the 30 to 88 MHz frequency band to form high-power VHF systems. The amplifier interfaces seamlessly with Datron's SpectreV® series (PRC2100V, PRC2150) of VHF transceivers and MT2100 mobile power adapter and also can be used with any VHF transmitter having an appropriate power output and compatible DC power and control interface.

The AM2100's rugged, compact, and light weight design make it ideal for mobile or base station systems. It's linearity and continuous duty rating ensures high performance for all VHF voice and high-speed data applications. It operates in single-frequency or frequency-hopping modes.

The AM2100 is entirely solid state, broadband, and operates from +24Vdc. It is shock resistant and moisture proof per MIL-STD-810. It contains RF input over-drive and over temperature protection.

The AM2100 employs a three-band section low-pass filter to reduce unwanted transmitter harmonics and spurious emissions and it maintains a stable RF output over the entire operating frequency range and over fluctuating temperatures. In addition, the AM2100 provides protection against load mismatch and open and short circuit conditions at the antenna port.

The amplifier is suitable for use with Datron's SpectreV® series (PRC2100V, PRC2150) of VHF transceivers with the appropriate broadband antenna.

- 30 to 87.975 MHz
- Continuous Duty Operation, Voice/Data
- +24VDC Operation
- Full Antenna VSWR Protection
- Over Temperature/Current Protection
- Over-Drive Protection
- Compact, Light Weight



**MT1060MM** 30W VHF Amplifier, Power Conditioner, and Power Supply  
The MT1060MM is a 30W VHF linear RF amplifier, power conditioner, and power supply designed for use with Datron's squad radio (PRC1060/PRC1070/PRC1080) and MT1060DS docking station to provide a 30W vehicular station for the handheld radio.

The MT1060MM's rugged, compact, and light weight design make it ideal for mobile systems. It is shock resistant and waterproof per MIL-STD-810. It is entirely solid state, broadband, and operates from +28Vdc. The power supply provides +13.8Vdc for the docking station and provides additional regulated DC power for the biasing and ALC circuitry.

The MT1060MM employs harmonic filters to reduce unwanted transmitter harmonics and spurious emissions and includes automatic level control (ALC) to maintain a stable RF output over the entire operating frequency range. The MT1060MM operates in single-frequency or frequency-hopping modes.

If the MT1060MM senses a high reverse power (high VSWR) or high temperature, then it automatically places the amplifier in bypass mode until the fault condition is alleviated. Due to its rugged design, no maintenance is required except for routine cleaning and inspection for loose connections.

The amplifier is suitable for use with Datron's squad radio and docking station with an appropriate broadband antenna.

- 30 to 87.975 MHz
- +28VDC Operation
- Antenna VSWR Protection
- Over Temperature Protection
- Compact, Light Weight



# VHF TACTICAL SUPPORT

# AM-1077/AM2100/MT1060MM VHF Tactical Support Amplifier

	AM-1077	AM2100	MT1060MM
<b>GENERAL</b>			
• RF POWER OUTPUT	50W Average	75W Average	30W Average
• FREQUENCY RANGE	30 to 87.975 MHz	30 to 87.975 MHz	30 to 87.975 MHz
• HARMONICS	-55 dBc, typical; 50 dBc minimum	-50 dBc (in band); -60 dBc (out of band)	
• DUTY CYCLE		Continuous service	
• RF DRIVE LEVEL	2W-5W	8W-10W	1W-2W
• INPUT/OUTPUT IMPEDANCE	50 Ohms	50 Ohms	50 Ohms
• POWER REQUIREMENTS	+24VDC, +12VDC with 12:28VDC converter	+28VDC at 10A nominal	+28VDC, 5A typical, 10A max
<b>MECHANICAL</b>			
• SIZE	2.4" x 11" x 11" (10 cm x 28 cm x 28 cm); (H x W x D)	2.25" x 6.5" x 13" (5.7 cm x 16.5 cm x 33.0 cm); (H x W x D)	2.4" x 11" x 11" (10 cm x 28 cm x 28 cm); (H x W x D)
• WEIGHT	8 lbs. (3.63 kg)	8 lbs. (3.63 kg)	8 lbs. (3.63 kg)
• COLOR	OD Green	OD Green	OD Green
<b>ENVIRONMENTAL</b>			
• TEMPERATURE	-40°C to +60°C operational, -55°C to +85°C storage	-40°C to +60°C operational	-40°C to +60°C operational, -40°C to +70°C storage
• SHOCK, VIBRATION, HUMIDITY, IMMERSION	Per MIL-STD-810	Per MIL-STD-810	Per MIL-STD-810
<b>CONTROLS AND INDICATORS</b>			
• CONTROLS	Amplifier ON/OFF	Amplifier ON/OFF	Amplifier ON/OFF
• CONNECTORS	RF input, RF output, Control, DC input	RF input, RF output, Control, DC input	RF input, RF output, Control, DC input

\* Subject to export regulations  
Specifications subject to change without notice - rev 1009  
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