

MA-7010M Millennium VHF Aeronautical Mobile Transceiver

The DX MA-7010M Millennium VHF Aeronautical Mobile Transceiver is a rugged, state of the art DSP (Digital Signal Processor) based unit, which is designed to meet the existing (US) 25 kHz channel spacing and the new 8.33 kHz international requirements in the same unit. The MA-7010M features full PC



programmability via its microphone jack; this includes programming of its operating frequencies, time out timer, personality, priority channels and scan-mode. Modulation and de-modulation circuitry is also DSP

based in order to provide consistent long-term performance. The un-modulated carrier output is 10 watts typical (7 minimum) and the unit is equipped with high temperature and High VSWR protection. The MA-7010M features an array of progress and warning tones for the operator's convenience.

Three operating modes:

- o Normal, up to 760 Ch.
- o Priority, up to 15 Pri Ch.
- o Scan, 15 groups of 15 Ch.

Easy to read wide-angle display

IBM® PC Programmable (Windows 95 or 98®)

Programmable Personality

- o User specific
- o 760 channels @ 25 kHz



GENERAL

OPERATION	Simplex VHF AM transmit and receive	Frequency range (at 25 kHz)	118 to 136.975 MHz
OPERATING MODES	Normal, priority and scan (at 8.33 kHz)	Frequency range	Between 118 and 136.9916 Mhz
CHANNEL BANDWIDTH	25 kHz and 8.33 kHz	Frequency stability	1 ppm
CHANNEL INCREMENTS	8.33 kHz		

CHANNEL SELECTION

Normal mode	Up to 760 channels, 25 kHz spacing, 8.33 spacing, or a mixture of both.	Priority mode	Up to 15 stored channels to a priority list. Channel kHz or a selection may be limited to those frequencies in the priority list.
Scan mode	Up to 15 scan groups each containing up to 15 channel frequencies.		

OPERATIONAL INFORMATION

DUTY CYCLE (receive)	Continuous	Duty Cycle (transmit)	25% with a maximum transmit time of 5 minutes. Longer transmit times, or a higher duty cycle, reduces the output power by 6 dB.
OPERATING TEMP.	Between -20°C and +55°C	Storage temperature	Between -40°C and +70°C.
HUMIDITY	Up to 80%, non condensing.		

DIMENSIONS & WEIGHT

Width, 6.97" (177 mm);	Height, 1.97" (50 mm);	Depth, 8.98" (228 mm);	Weight, 3.85 LBS (1.75 kg)
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POWER SUPPLY

Mobile Input Voltage:	13.2 VDC (nominal 12VDC system)	Current Receive:	1A (nominal)
Battery:	12V, 8A, Gel Cell	Current Transmit:	5 A (nominal)

RECEIVE CIRCUIT

Sensitivity	-104 dBm at 30% modulation depth for 10 dB (S+N):N
Selectivity	At 25 kHz spacing: < 6 dB @ +/- 8.5 kHz > 70 dB @ +/- 25 kHz
Selectivity	At 8.33 kHz spacing: < 6 dB @ +/- 3 kHz > 60 dB @ +/- 8.33 kHz
Intermodulation Suppression	> 70 dB
Spurious Response Suppression	> 80 dB
Audio Power Output	4 W into 4 ohms loudspeaker (< 10% THD)
Distortion	< 10% THD for 90% modulation depth
RF input impedance	50 ohms

TRANSMIT CIRCUIT

Nominal RF Output Power	Adjustable between 5 & 12W. Normally set at 8W.
Spurious	<46 dBm when more than 1 MHz from the carrier.
Harmonic Outputs	<36 dBm
Distortion	< 5% THD. RF load impedance 50 ohms.

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Availability, Specifications & Pricing subject to change without notice.