



QM4091M HF Digital Speech Encryptor

TACTICAL
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The Q-MAC QM4091M Digital Speech Encryptor is optimised for excellent speech clarity and high security over HF radio links. On air tests show the QM4091M performs very well in comparison to other handset and integrated products.

It is able to get through on CCIR Ionospheric simulator (Bad, Moderate and Good conditions) and will synchronise on as little as 10dB S/N ratio.

The QM4091M automatically detects secure speech, making it operator friendly. It can be used with Q-MAC DTMF handset QM4014 allowing selective calling or standard handset QM4016.

System Features

- Secure Digital Speech Communications
- Automatic Detection of Encrypted Speech
- Auto switching between Analog and Digital
- High grade Vocoder
- Built in forward error correction
- Advanced digital signal processing
- Automatic Clarifier
- Small size
- Low Current Consumption



QM4091M Digital Speech Encryptor
with HF-90M Ultralight Manpack

secure • simple to use • reliable • compact



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Technical Specifications

General

Description	Value
Bandwith Used	300-2500Hz
Frequency correction range	+/- 125Hz
Speech Modem	OFDM 36 carrier DPQSK
Symbol rate	3.6kHz
Guard Interval	20mS 50baud
Tone spacing	4mS
Vocoder	62.5Hz
FEC	AMBE
Master Key length	Golay and Hamming
Encryption	12 decimal digits, 2 ⁷¹ codes DES Data Encryption Standard
Modes	Speech Clear/Speech Secure
Handset	Q-MAC military DTMF handset
Data rate	2,400bps speech with 1,200bps FEC

Mechanical and Environmental

Description	Value
Weight	900g stand alone
Dimensions (L x W x H)	210 x110 x 57mm (stand alone)
Temperature	Operating -20C to +60C Storage -30C to +80C
Immersion	Per Mil-Std 810F
Drop	Per Mil-Std 810F
Vibration	Per Mil-Std 810F
Construction	Aluminium body



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