

Hytera Digital Mobile Radio Specification Comparison



SPECIFICATION	MD652	MD782
General		
Frequency Range	VHF: 136 - 174 MHz	VHF: 136 - 174 MHz
	UHF: 400 - 470 MHz	UHF: 400 - 470 MHz
Channel Capacity	1024	1024
Zone Capacity	64	64 (with max. 16 channels each)
Channel Spacing	12.5 / 20 / 25 kHz	12.5 / 20 / 25 kHz (analog)
		12.5 kHz (digital)
Operating Voltage	13.6VDC \pm 15%	13.6VDC \pm 15%
Current Drain	Standby: < 0.6 A	Standby: \leq 0.6 A
	Receive: < 2.0 A	Receive: \leq 2.0 A
	Transmit: 1W: < 3 A	Transmit: 5 W: \leq 5 A
	25W: < 8 A	25 W: \leq 8 A
		45 W / 50 W: \leq 12 A
Frequency Stability	\pm 0.5 ppm	\pm 1.5 ppm
Antenna Impedance	50 Ω	50 Ω

Dimensions (H x W x D)	6.5 x 1.81 x 5.5 inches	6.8 x 2.4 x 7.9 inches
Weight	2.3 lbs	3.7 lbs
Transmitter		
RF Power Output	1-25W	Low VHF & UHF 1, 2, 3: 5-25W
		High VHF: 5-50W, UHF 1 ,2, 3: 5-45W UHF5: 5-35W
FM Modulation	11KΦF3E at 12.5 kHz	11KΦF3E at 12.5 kHz
	14KΦF3E at 20 kHz	14KΦF3E at 20 kHz
	16KΦF3E at 25 kHz	16KΦF3E at 25 kHz
4FSK Digital Modulation	12.5 kHz (data only): 7K6ΦFXD	12.5 kHz (data only): 7K6ΦFXD
	12.5 kHz (data and voice): 7K6ΦFXW	12.5 kHz (data and voice): 7K6ΦFXW
Conducted/Radiated Emissions	-36 dBm < 1 GHz	-36 dBm < 1 GHz
	-30 dBm > 1 GHz	-30 dBm > 1 GHz
Modulation Limiting	±2.5 kHz at 12.5 kHz	±2.5 kHz at 12.5 kHz
	±4.0 kHz at 20 kHz	±4.0 kHz at 20 kHz
	±5.0 kHz at 25 kHz	±5.0 kHz at 25 kHz
FM Hum & Noise	40 dB at 12.5 kHz	40 dB at 12.5 kHz
	43 dB at 20 kHz	43 dB at 20 kHz
	45 dB at 25 kHz	45 dB at 25 kHz
Adjacent Channel Selectivity	60 dB at 12.5 kHz	60 dB at 12.5 kHz
	70 dB at 20/25 kHz	70 dB at 20/25 kHz
Audio Response	+1 dB to -3 dB	+1 to -3 dB
Audio Distortion	≤ 3%	≤ 3%
Digital Vocoder Type	AMBE++ or SELP	AMBE++
Receiver		
Sensitivity (analog)	0.3 μV (12 dB SINAD)	0.3 μV (12 dB SINAD)
	0.22 μV (typical)) (12 dB SINAD)	0.22 μV (Typical) (12 dB SINAD)
	0.4 μV (20 dB SINAD)	0.4 μV (20 dB SINAD)
Sensitivity (digital)	0.3 μV / BER 5%	0.3 μV / BER 5%
Adjacent Channel Selectivity	60 dB at 12.5 kHz / 70 dB at 20/25 kHz	65 dB at 12.5 kHz / 75 dB at 20 and 25 kHz
TIA-603 ETSI	60 dB at 12.5 kHz / 70 dB at 20/25 kHz	60 dB at 12.5 kHz / 70 dB at 20 and 25 kHz
Intermodulation	70 dB at 12.5/20/25 kHz	75 dB at 12.5/20/25 kHz
TIA-603 ETSI	65 dB at 12.5/20/25 kHz	70 dB at 12.5/20/25 kHz

Spurious Response Rejection	70 dB at 12.5/20/25 kHz	75 dB at 12.5/20/25 kHz
TIA-603 ETSI	70 dB at 12.5/20/25 kHz	75 dB at 12.5/20/25 kHz
S/N	40 dB at 12.5 kHz	40 dB at 12.5 kHz
	43 dB at 20 kHz	43 dB at 20 kHz
	45 dB at 25 kHz	45 dB at 25 kHz
Audio Power Output	0.5W	Internally, 3 W at 20 Ω
		Externally, 7.5 W at 8 Ω
Audio Distortion	$\leq 3\%$	$\leq 3\%$
Audio Response	+1 to -3 dB	+1 to -3 dB
Conducted Spurious Emissions	< -57 dBm	< -57 dBm
Environmental Specs		
Operating Temperature Range	-22 °C to +140 °C	-30 °C to +60 °C
Storage Temperature Range	-40 °C to +185 °C	-40 °C to +85 °C
Dust and Moisture Protection	IP54	IP54
Shock and Vibration Resistance	MIL-STD-810 C/D/E/F/G	MIL-STD-810 C/D/E/F/G
Relative Humidity	MIL-STD-810 C/D/E/F/G	MIL-STD-810 C/D/E/F/G
GPS		
Time to first fix (TTFF) cold start	< 1 minute	< 1 minute
Time to first fix (TTFF) warm start	< 10 seconds	< 10 seconds
Horizontal accuracy	< 10 meters	< 10 meters