



**Heavy-Duty
FM Dual band Mobile
with Wide-Receiver
Coverage**

144/430MHz 50W/45W (430MHz)
FM DUAL BAND TRANSCEIVER

FT-7900

FT-7900R:US, Asia and Australia

FT-7900E:Europe

(DTMF Microphone MH-48A6JA, Mounting Bracket,
Separation Kit YSK-7800 and DC Power Cable included)

- Large Backlit LCD Display for easy operation
- Stable RF Power (50 Watts VHF / 45 Watts UHF)
- Reliable performance in harsh environments
- 1000 memory channels with 20 Memory Groups
- Remote Front Panel Design
(Separation Kit YSK-7800 : Supplied Accessory)

Advanced Features

- One-Touch Hyper Memories Feature
- 4 Power output levels: 50,45W/20W/10W/5W
- Wide RX Frequency Coverage: 108 - 520MHz, 700 - 999.990MHz (Cellular Blocked)
- 50-Tone CTCSS/104-Tone DCS Tone System
- 16 DTMF memories
- Versatile Scanning Capability
- Smart Search Operation
- 1200 or 9600bps Packet Operation
- ARTS (Auto-Range Transponder System)
- Radio to Radio Cloning



**Genuine 65W
High Power
144MHz
FM Mobile**

144MHz 65W
FM SINGLE BAND TRANSCEIVER

FTM-3100

FTM-3100R: US, Asia and Australia

FTM-3100E: Europe

(DTMF Microphone MH-48A6JA, USB Cable,
Mounting Bracket and DC Power Cable included)

- 65W Stable Output Power with FACC
- Loud Audio output with 3W front speaker
- Expanded receiver coverage: 136-174MHz
- 220 Memory channels with
8 alpha-numeric characters
- User-Programmable Microphone Keys (4 keys)



FACC: Funnel Air-Convection Conductor

Advanced Features

- Memory-Only Mode
- 50-Tone CTCSS/104-Tone DCS Tone System
- Versatile Scanning Capability
- TX/RX Split frequency memory
- RF squelch (only passes signals exceeding the programmed squelch level)
- DTMF Auto dialer (10 channel) Operation
- Large LED Mode indicator for easy operation



**The King of Mobile,
80W High Power
Output**

144MHz 80W
FM SINGLE BAND TRANSCEIVER

FT-2980

FTM-2980R: US, Asia and Australia

FTM-2980E: Europe

(DTMF Microphone MH-48A6JA, Mounting Bracket
and DC Power Cable included)

- Massive Heatsink guarantees 80 Watts of RF Power
with No Cooling Fan Needed
(Four selectable power output levels are provided: 80/30/10/5 Watts)
- Loud 3 Watts of Audio Output for noisy environments
- Expanded receiver coverage: 136-174MHz
- 200 Memory Channels for serious users

Advanced Features

- CTCSS and DCS Encode/Decode Built In
- Versatile Scanning Capability
- Dual Receive
- WX Channels with "Severe Weather" Alert (US Version)
- Smart Search Operation
- DTMF Direct Access Microphone Included
- Alpha-Numeric Channel Display
- RF-Squelch
- Interactive Programming Menu

	OPTIONS										
FT-7900	●	●	●	●	●	●	●	●	●	●	●
FTM-3100	●	●	●	●				●	●		
FT-2980	●	●	●					●	●		

*1 US and Asian versions only *2 US version only *3 Depending on the transceiver

Mobile Transceivers

	C4FM/FM Dual Band						C4FM/FM Single Band				FM Quad Band	FM Dual Band			FM Single Band						
	FTM-400XR	FTM-400XE	FTM-100DR	FTM-100DE	FTM-7250DR	FTM-7250DE	FTM-3200DR	FTM-3200DE	FTM-3207DR	FTM-3207DE	FT-890R	FT-790R	FT-790E	FTM-3100R	FTM-3100E	FT-290R	FT-290E				
General																					
Frequency Ranges	RX: 108 - 137 MHz 137 - 174 MHz 174 - 400 MHz 400 - 480 MHz 480 - 999.99 MHz US Version Cellular Blocked TX: 144 - 148 MHz 430 - 450 MHz	RX: 108 - 137 MHz 137 - 174 MHz 174 - 400 MHz 400 - 480 MHz 480 - 999.99 MHz US Version Cellular Blocked TX: 144 - 148 MHz 430 - 440 MHz	RX: 108 - 137 MHz 137 - 174 MHz 174 - 400 MHz 400 - 480 MHz 480 - 999.99 MHz US Version Cellular Blocked TX: 144 - 148 MHz 430 - 450 MHz	RX: 108 - 137 MHz 137 - 174 MHz 174 - 400 MHz 400 - 480 MHz 480 - 999.99 MHz US Version Cellular Blocked TX: 144 - 148 MHz 430 - 440 MHz	RX: 108 - 579.995 MHz TX: 144 - 148 MHz 430 - 450 MHz	RX: 108 - 579.995 MHz TX: 144 - 148 MHz 430 - 440 MHz	RX: 136 - 174 MHz TX: 144 - 148 MHz	RX: 136 - 174 MHz TX: 144 - 148 MHz	RX: 420 - 470 MHz TX: 430 - 450 MHz	RX: 420 - 470 MHz TX: 430 - 440 MHz	RX: 28 - 28.7 MHz 50 - 54 MHz 103 - 180 MHz 320 - 400 MHz 700 - 995 MHz US Version Cellular Blocked TX: 28 - 28.7 MHz 50 - 54 MHz 44 - 48 MHz or 44 - 48 MHz 49 - 60 MHz or 49 - 49 MHz	RX: 108 - 520 MHz 700 - 999 MHz US Version Cellular Blocked TX: 144 - 148 MHz 430 - 450 MHz	RX: 108 - 520 MHz 700 - 999 MHz TX: 144 - 148 MHz 430 - 440 MHz	RX: 136 - 174 MHz TX: 144 - 148 MHz	RX: 136 - 174 MHz TX: 144 - 148 MHz	RX: 136 - 174 MHz TX: 144 - 148 MHz	RX: 136 - 174 MHz TX: 144 - 148 MHz				
Channel Steps	5, 6.25, 8.33, 10, 12.5, 15, 20, 25, 50, 100 kHz (8.33 kHz: Only for Air band)		5, 6.25, 8.33, 10, 12.5, 15, 20, 25, 50, 100 kHz (8.33 kHz: Only for Air band)		5, 6.25, 8.33, 10, 12.5, 15, 20, 25, 50, 100 kHz (8.33 kHz: Only for Air band)		5, 6.25, 10, 12.5, 15, 20, 25, 50, 100 kHz		5, 6.25, 10, 12.5, 15, 20, 25, 50, 100 kHz		5, 10, 12.5, 15, 20, 25, 50, 100 kHz			5, 6.25, 10, 12.5, 15, 20, 25, 50, 100 kHz			5, 10, 12.5, 15, 20, 25, 50, 100 kHz				
Frequency Stability	±2.5 ppm (-4°F to +140°F, -20°C to +60°C)		±2.5 ppm (-4°F to +140°F, -20°C to +60°C)		±2.5 ppm (-4°F to +140°F, -20°C to +60°C)		±2.5 ppm (Digital), ±10 ppm (Analog) (-4°F to +140°F, -20°C to +60°C)		±2.5 ppm (Digital), ±5 ppm (Analog) (-4°F to +140°F, -20°C to +60°C)		±5 ppm (+14°F to +140°F, -10°C to +60°C)			±10 ppm (-4°F to +140°F, -20°C to +60°C)			±10 ppm (-4°F to +140°F, -20°C to +60°C)				
Supply Voltage	Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground		Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground		Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground		Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground		Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground		Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground			Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground			Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground				
Current Consumption	0.5 A (Receive) 11 A (TX, 144 MHz 50 W), 12 A (TX, 430 MHz 50 W)		0.5 A (Receive) 11 A (TX, 144 MHz 50 W), 12 A (TX, 430 MHz 50 W)		0.5 A (Receive), 10A (TX, 50W), 6A (TX, 25W), 4A (TX, 5W)		0.5 A (Receive), 15 A (TX, 65 W), 10 A (30 W), 5 A (5 W)		0.5 A (Receive), 12 A (TX, 65 W), 6 A (25 W), 4 A (5 W)		0.8 A (Receive) 8.5 A (TX, 29W) 144 MHz 50W 9 A (TX, 50 MHz 50W=30 MHz 35W)			0.5 A (Receive) 8.5 A (TX, 144 MHz 50 W) 9 A (TX, 430 MHz 45 W)			0.5 A (Receive) 15 A (TX, 65 W), 10 A (30 W), 5 A (5 W)			0.7 A (Receive) 15 A (80W) / 9 A (30 W) / 5 A (10 W) / 4 A (5 W)	
Operating Temperature	-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C			-4°F to +140°F, -20°C to +60°C			-4°F to +140°F, -20°C to +60°C				
Case Size (WxHxD)	Radio Unit / 5.5" x 1.8" x 4.9" (140 x 40 x 125 mm) (W/O Fan & connectors) Controller / 5.5" x 2.8" x 0.8" (140 x 72 x 20 mm) (W/O knob & connectors)		5.5" x 1.8" x 6.5" (140 x 45 x 164 mm) (with Front Panel, W/O Fan, knob & connectors) Front Panel / 5.5" x 1.8" x 1.2" (140 x 45 x 29 mm) (W/O knob)		6.1" x 1.7" x 5.7" (155 x 42 x 145.5mm) w/o knobs and FAN		6.1" x 1.7" x 5.7" (155 x 42 x 145.5mm) w/o knobs and FAN		6.1" x 1.7" x 5.7" (155 x 42 x 145.5mm) w/o knobs and FAN		5.5" x 1.6" x 6.6" (140 x 41.5 x 168 mm) (W/O knob & connectors)			5.5" x 1.6" x 6.6" (140 x 41.5 x 168 mm) (W/O knob & connectors)			6.1" x 1.7" x 5.7" (155 x 42 x 145.5mm) w/o knobs and FAN			6.3" x 2.0" x 7.3" (160 x 50 x 185 mm) (W/O knob & connectors)	
Weight	2.64 lbs (1.2kg) with Radio Unit, Controller, Control Cable		2.43 lbs (1.1 kg) with Radio Unit, Front panel		2.86 lbs (1.3kg)		2.86 lbs (1.3 kg)		2.86 lbs (1.3 kg)		2.2 lbs (1 kg)			2.2 lbs (1 kg)			2.86 lbs (1.3 kg)			4.2 lbs (1.9 kg)	
Transmitter																					
RF Power Output	50 / 20 / 5 W		50 / 20 / 5 W		50 / 25 / 5 W		65 / 30 / 5 W		55 / 25 / 5 W		50 / 20 / 10 / 5 W (29/50/144 MHz) 35 / 20 / 10 / 5 W (430 MHz)			50 / 20 / 10 / 5 W (144 MHz) 45 / 20 / 10 / 5 W (430 MHz)			65 / 30 / 5 W			80 / 30 / 10 / 5 W	
Spurious Emission	At least 60 dB below		At least 60 dB below		At least 60dB below		At least 60 dB below At least 60 dB below At least 61.1 dB below (65 W)		At least 60 dB below At least 60 dB below At least 60 dB below		At least 60 dB below (29MHz: At least 50 dB below)			At least 60 dB below			At least 60 dB below At least 60 dB below At least 61.1 dB below (65 W)			At least 60 dB below	
Microphone Impedance	2 kΩ		2 kΩ		2kΩ		2 kΩ		2 kΩ		2 kΩ			2 kΩ			2 kΩ			2 kΩ	
Receiver																					
Sensitivity ※ Measurement Method AM Mode : 10 dB SN FM Mode : 12 dB SINAD Digital Mode : BER 1%	0.8 µV TYP (108 - 137 MHz, AM) 0.2 µV (137 - 140 MHz, FM) 0.2 µV (140 - 150 MHz, FM) 0.19 µV TYP (140 - 150 MHz, Digital Mode) 0.25 µV (150 - 174 MHz, FM) 0.3 µV TYP (174 - 222 MHz, FM) 0.25 µV TYP (222 - 300 MHz, FM) 0.8 µV TYP (300 - 336 MHz, AM) 0.25 µV (336 - 420 MHz, FM) 0.2 µV (420 - 470 MHz, FM) 0.19 µV TYP (420 - 470 MHz, Digital Mode) 0.2 µV (470 - 520 MHz, FM) 0.4 µV TYP (800 - 900 MHz, FM) 0.8 µV TYP (900 - 999.99 MHz, FM) US Version Cellular Blocked		0.8 µV TYP (108 - 137 MHz, AM) 0.2 µV (137 - 140 MHz, FM) 0.2 µV (140 - 150 MHz, FM) 0.19 µV TYP (140 - 150 MHz, Digital Mode) 0.25 µV (150 - 174 MHz, FM) 0.3 µV TYP (174 - 222 MHz, FM) 0.25 µV TYP (222 - 300 MHz, FM) 0.8 µV TYP (300 - 336 MHz, AM) 0.25 µV (336 - 420 MHz, FM) 0.2 µV (420 - 470 MHz, FM) 0.19 µV TYP (420 - 470 MHz, Digital Mode) 0.2 µV (470 - 520 MHz, FM) 0.4 µV TYP (800 - 900 MHz, FM) 0.8 µV TYP (900 - 999.99 MHz, FM) US Version Cellular Blocked		1.5µV TYP for 10dB SN (108 - 137 MHz, AM) 0.16µV for 12dB SINAD (137 - 174 MHz, FM) 1µV for 12dB SINAD (174 - 222 MHz, FM) 0.5µV for 12dB SINAD (300 - 350 MHz, FM) 0.2µV for 12dB SINAD (350 - 400 MHz, FM) 0.16µV for 12dB SINAD (400 - 470 MHz, FM) 0.35µV for 12dB SINAD (470 - 580 MHz, FM) 0.19µV TYP for BER 1%: Digital mode		0.2 µV (FM Narrow) 0.22 µV (FM Wide) 0.22 µV (Digital)		0.2 µV (FM Narrow) 0.22 µV (FM Wide) 0.19 µV (Digital)		0.2 µV (FM)			0.2 µV (FM)			0.2 µV (FM Narrow) 0.22 µV (FM Wide)			0.4 µV (FM)	
Selectivity	NFM, AM 12 kHz / 30 kHz (-6 dB / -60 dB)		NFM, AM 12 kHz / 30 kHz (-6 dB / -60 dB)		12kHz / 28kHz (-6dB / -60dB)		12 kHz / 28 kHz (-6 dB / -60 dB)		12 kHz / 28 kHz (-6 dB / -60 dB)		12 kHz / 30 kHz (-6 dB / -60 dB)			12 kHz / 30 kHz (-6 dB / -60 dB)			12 kHz / 28 kHz (-6 dB / -60 dB)			12 kHz / 28 kHz (-6 dB / -60 dB)	
AF Output	3 W @ 8 Ω for 10% THD (@ 13.8 V) Internal Speaker 8 W @ 4 Ω for 10% THD (@ 13.8 V) External Speaker		3 W @ 8 Ω for 10% THD (@ 13.8 V) Internal Speaker 8 W @ 4 Ω for 10% THD (@ 13.8 V) External Speaker		3W (40, THD10%, 13.8V)		3 W @ 4 Ω for 10% THD (@ 13.8 V)		3 W @ 4 Ω for 10% THD (@ 13.8 V)		2 W @ 8 Ω for 5% THD (@ 13.8 V)			2 W @ 8 Ω for 5% THD (@ 13.8 V)			3 W @ 4 Ω for 10% THD (@ 13.8 V)			3 W @ 4 Ω for 10% THD (@ 13.8 V)	