

# FM +

## FM T55



The new FM+ integrates professional WaveCAST Wi-Fi audio server technology into a Williams Sound FM assistive listening system. End users can now listen with either an FM receiver or with their own smartphone (via the WaveCAST Listening App). Venues no longer need to choose between providing FM or Wi-Fi assistive listening systems. Along with this flexibility comes exceptional audio quality, as the FM+ is built on a professional digital audio (DSP) platform.

### FM +

Dimensions	8.45" W x 8.25" D x 1.72"H (21.5 cm x 21 cm x 4.4 cm)
Weight	Transmitter: 3.2 lbs (1.45 kg)
Color	Black/Silver with silver legends on the front, white legends on the back
Rack Mount	Standard 19" Rack, one EIA rack space high, 1/2 space wide 1-2 units can be mounted in a single rack space with optional RPK 005 (single) or RPK 006 (double) Rack Mount Kits
Power Supply	Desktop Style Transformer (TFP 062); Input: 100-240 VAC, 50/60 Hz. IEC Line Cord; Output: 24 VDC, 750 mA, 18W. 2.5mm ID center positive barrel connector
Power ON Indicator	Push On/Push Off latching power button, backlit green indicates power ON, backlight off indicates power OFF, fading from bright to dark indicates Sleep Mode.
Temperature Range	Operating: +32° F to +104° F (0° C to 40° C); Storage: -4° F to +158° F (-20° C to 70° C)
Ethernet	RJ-45 on back of unit supports CAT 5e cable lengths up to 328 feet (100 meters); 10/100 Base-T IEEE 802.3 compliant, unique MAC address
Dante	Only available on FM T55 D
User Interface	3.12" High Resolution OLED display with selections via buttons. Hosted Web page. Remote control and monitoring.
<b>RF Section</b>	
Operating Frequencies	72.1-75.9 MHz , 17 wideband channels (selectable)
Frequency Accuracy	± 2 ppm stability, 0-50° C
Deviation	± 75 kHz maximum
Pre-Emphasis	75 µsec
RF Field Strength	Does not exceed 80 mV/m at 3 m
Compatible Antennas	ANT 005, ANT 021, ANT 024, or ANT 025

Transmission Range	Up to 1000 ft (304 m) with ANT 005 coaxial antenna mounted on rear chassis connector		
RF Outputs	(1x) #10-32 stud connector in center of unit (pcb mounted) (1x) F-connector on rear chassis		
RF Transmit Indicator	1 Green LED On Air Indicator		
RF Power	Full, Medium, Low or OFF indicated by menu icon.		
RF Time Out (sleep mode)	30 min. duration, 4 hr. duration, or Always On selected via menu. Starts when audio is below -18 dB level with no button pressed for selected duration.		
<b>Audio Section</b>			
Audio Processor Functions	DSP based; Compression: 1:1, 1.5:1 or 2:1; High-pass and Low-pass Filter Frequency control, Music, Voice and Hearing Assistance Audio Presets		
Frequency Response	31-16000 Hz, $\pm 3$ dB (re: 1 kHz, $\pm 3$ dB) ("Music" Audio Preset)		
Signal-to-Noise Ratio	67 dB (typical) Transmitted RF		
Total Harmonic Distortion	Less than 0.25% @ 1 kHz (RF output)		
Common Mode Rejection	>57 dB @ 1 kHz, Mic or Line		
Audio Inputs	(1x) Combination 3-pin XLR, 1/4" (TRS) jack for balanced or unbalanced line level, or balanced or unbalanced microphone with selectable phantom power		
Audio Input Gain Adjust	In menu, adjustable to 0 to -50 dB, in 1dB steps		
Phantom Power	14.4 VDC applied through 2.2 k $\Omega$ resistors to analog combo jack: Pin 2 and Pin 3 on XLR jack, or tip and ring on 1/4" TRS jack		
Audio Level Indicators	10-LED array that reads -18 to +9 dB at 3 dB intervals. 7 Green, 2 Amber, and 1 red LED. Green LEDs indicate normal operating audio level peaks, Amber LEDs indicate close to overload peaks, Red LED indicates overload peaks		
Headphone Output	1/4" TRS stereo jack, mono signal, 14.85 mW at +9 dB, maximum in 33 $\Omega$ (level adjustable in menu 0 to -40 dB in 2 dB steps)		
Line Output	RCA jack (black), -10 dBV (.32 VRMS); Output impedance 100 $\Omega$ at +9 dB		
Input Levels (Bal or Unbal) (at Audio Input Gain = 0dB)	Nominal (1st Amber LED)	Overload Warning (Displayed On Screen)	Absolute Max. Rating*
Microphone	-55 dBV (1.7 mV RMS)	-22 dBV (80 mV RMS)	+20 dBV (10.0 V RMS)
Line	-25 dBV (55 mV RMS)	+16 dBV (6.3 V RMS)	+20 dBV (10.0 V RMS)
Approvals	FCC, RoHS3, WEEE, Industry Canada		
Warranty	2-year parts and labor		

NOTE: Specifications are subject to change without notice.

\* Stresses above these ratings may cause permanent damage or degrade reliability.

## Architectural Engineering Specs

### FM T55

The FM T55 shall have a 3-pin XLR 1/4" jack for audio inputs.

The FM T55 shall have a -10 dBV (.32 VRMS) black RCA jack for audio outputs.

The FM T55 shall have a 1/4" TRS stereo jack, mono signal, 15.7 mW for headphone output.

The FM T55 shall have an RJ-45 ethernet port for providing a network connection.

The FM T55 shall have a power source at 24VDC.

The FM T55 shall be housed in a 8.54"W x 8.25"D x 1.72"H device enclosure.

The FM T55 shall be enclosed in a black and silver case with silver legends on the front and white legends on the back.

The FM T55 shall be covered by a two-year parts and labor warranty.

This product shall be the Williams AV model FM T55.

**NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.**

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