

# FM +

## FM T55/FM T55 D



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 platform (DSP).

### FM T55 / FM T55 D

<b>Dimensions</b>	8.45" W x 8.25" D x 1.72"H (21.5 cm x 21 cm x 4.4 cm)
<b>Weight</b>	Transmitter: 3.2 lbs (1.45 kg)
<b>Color</b>	Black/Silver with silver legends on the front, white legends on the back
<b>Rack Mount</b>	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
<b>Power Supply</b>	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
<b>Power ON Indicator</b>	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.
<b>Temperature Range</b>	Operating: +32° F to +122° F (0° C to 50° C); Storage: -4° F to +158° F (-20° C to 70° C)
<b>Ethernet</b>	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
<b>Dante</b>	Only available on FM T55 D
<b>User Interface</b>	3.12" High Resolution OLED display with selections via buttons. Hosted Web page. Remote control and monitoring.
<b>RF Section</b>	
<b>Operating Frequencies</b>	72.1-75.9 MHz , 17 wideband channels (selectable)
<b>Frequency Accuracy</b>	± 2 ppm stability, 0-50° C
<b>Deviation</b>	± 75 kHz maximum
<b>Pre-Emphasis</b>	75 µsec
<b>RF Field Strength</b>	Does not exceed 80 mV/m at 3 m
<b>Compatible Antennas</b>	ANT 005, ANT 021, ANT 024, ANT 025, ANT 029
<b>Transmission Range</b>	Up to 1000 ft (304 m) with ANT 005 coaxial antenna mounted on rear chassis connector

<b>RF Outputs</b>	(1x) #10-32 stud connector in center of unit (pcb mounted) (1x) F-connector on rear chassis		
<b>RF Transmit Indicator</b>	1 Green LED On Air Indicator		
<b>RF Power</b>	Full, Medium, Low or OFF indicated by menu icon.		
<b>RF Time Out (sleep mode)</b>	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>			
<b>Audio Processor Functions</b>	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		
<b>Frequency Response</b>	31-16000 Hz, $\pm 3$ dB (re: 1 kHz, $\pm 3$ dB) ("Music" Audio Preset)		
<b>Signal-to-Noise Ratio</b>	67 dB (typical) Transmitted RF		
<b>Total Harmonic Distortion</b>	Less than 0.25% @ 1 kHz (RF output)		
<b>Common Mode Rejection</b>	>57 dB @ 1 kHz, Mic or Line		
<b>Audio Inputs</b>	(1x) Combination 3-pin XLR, 1/4" (TRS) jack for balanced or unbalanced line level, or balanced or unbalanced microphone with selectable phantom power		
<b>Audio Input Gain Adjust</b>	In menu, adjustable to 0 to -50 dB, in 1dB steps		
<b>Phantom Power</b>	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		
<b>Audio Level Indicators</b>	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		
<b>Headphone Output</b>	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)		
<b>Line Output</b>	RCA jack (black), -10 dBV (.32 VRMS); Output impedance 100 $\Omega$ at +9 dB		
<b>Input Levels (Bal or Unbal) (at Audio Input Gain = 0dB)</b>	<b>Nominal (1st Amber LED)</b>	<b>Overload Warning (Displayed On Screen)</b>	<b>Absolute Max. Rating*</b>
<b>Microphone</b>	-55 dBV (1.7 mV RMS)	-22 dBV (80 mV RMS)	+20 dBV (10.0 V RMS)
<b>Line</b>	-25 dBV (55 mV RMS)	+16 dBV (6.3 V RMS)	+20 dBV (10.0 V RMS)
<b>Approvals</b>	FCC, RoHS3, WEEE, Industry Canada		
<b>Warranty</b>	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 / FM T55 D

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

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

The FM T55 [D] shall have a 1/4" TRS stereo jack, mono signal, 14.85 mW for headphone output.

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

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

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

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

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

This product shall be the Williams AV model FM T55 [D].

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

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