

WILLIAMS AV

FM+ C

DUAL FM + WI-FI WIRELESS BROADCASTING SYSTEM



FM+ C is the first transmitter of its kind to offer an FM broadcast and Wi-Fi audio broadcast from a single input source. Whether using the FM+ C for assistive listening, language interpretation, or audio description, this "dual broadcast" technology gives users the option of listening to real-time audio stream on their smartphone or tablet using the free WaveCAST receiver app (iOS and Android) or use an available FM receiver from the venue. The FM+ C works with current and legacy Williams AV receivers operating at the 72-76 MHz bandwidth.

Along with the flexibility of dual broadcast

Key Features

- Dual broadcast transmitter featuring FM and Wi-Fi audio broadcast from a single input source.
- DSP platform, designed for pro-audio applications, delivers better audio quality for a full, rich sound and greater intelligibility.
- AV Pros can control the FM+ C system via third-party room controls using Telnet commands via Ethernet. Commands include power, audio gain, channel selection, DSP preset, and more.

Applications

- Assistive Listening
- Language Interpretation
- Audio Description

technology comes exceptional audio quality. The FM+ is built on a professional digital audio (DSP) platform which means better intelligibility for your audience. Select from one of the DSP presets which optimize for voice, music or hearing assist, or modify DSP settings, including high/low pass filters and compression options to meet your specific requirements.

The FM+ C has support for Telnet commands via an Ethernet port enabling AV professionals to control and monitor the FM+ C using third-party room control systems.

Markets

- Houses of Worship
- Stadiums
- Performing Arts Venues/Theaters
- Government
- Education - classrooms & lecture halls



View our full FM line at williamsav.com/product/fmplusc-t55c/

Product Specifications: FM+ C (T55C)

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
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 with backlight. Green backlight indicates power ON, backlight off indicates power OFF.
Temperature Range	Operating: +32° F to +122° F (0° C to 50° C); Storage: -4° F to +158° F (-20° C to 70° C)
Ethernet	RJ-45 on the back of the unit supports CAT 5e cable lengths up to 328 feet (100 meters); 10/100 Base-T IEEE 802.3 compliant, unique MAC address. The RJ-45 jack is used for web interface and streaming audio out. An external Router/ DHCP Server is required to stream audio to receiving devices.
Dante	(1x) RJ-45 jack. Only available on FM T55C D
User Interfaces	1. 3.12" High-Resolution OLED display with selections via buttons, 2. Hosted Web page, 3. Telnet commands over ethernet (see our "WaveCAST and FM+ Programmers Guide" for available commands and protocol).
RF Section	
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, ANT 025, ANT 029. The FCC requires this device to be used with approved, FCC 15.203 compliant antennas and be professionally installed. Refer to Williams AV's Antenna Selection Install Guide for compliant antennas for this product. Refer to Williams AV's Antenna Selection Install Guide for FCC-compliant antennas for this product.
Transmission Range	Up to 1000 ft (304 m) with ANT 005 coaxial antenna mounted on rear chassis F-connector
RF Outputs	(1x) #10-32 stud connector in center of unit (pcb mounted) (1x) F-connector on rear chassis
RF Transmit (RF) Power Indicator	1 OLED On Air Indicator with 4 states indicating power level Off, Low, Medium and Full Power.

Product Specifications: FM+ C (T55C)

RF Time Out (sleep mode)	30 min. duration, 4 hr. duration, or Always On; selected via web interface. When audio drops below -18 dB, the selected duration begins, and when it expires the unit stops transmitting and goes into a low-power ("sleep") mode. Any button press "awakens" the unit and it begins transmitting again.
Audio Section	
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, ± 3 dB (re: 1 kHz, ± 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. Optional RJ-45 Dante Input ("D" models only).
Audio Input Gain Adjust	Adjustable from +24dB to -60 dB, in 1dB steps from front screen or web interface.
Phantom Power	14.4 VDC applied through 2.2 k Ω resistors to analog combo jack: Pin 2 and Pin 3 on XLR jack, or tip and ring on 1/4" TRS jack
Audio Level Display	Front screen bar graph display, each segment representing 3dB. It ranges from -18 (1 segment lit) to +12dB (10 segments lit). Over-range warning is indicated by 'OVL'D' and flashing empty bar.
Headphone Output	1/4" TRS stereo jack, mono signal, 33 Ω .
Dante Input	(1x) RJ-45 jack only available on FM T55C [D].
Approvals	FCC, RoHS3, WEEE, Industry Canada
Warranty	2-year warranty against component failure and manufacturing defects. See the Full Warranty statement on the website for details.* Stresses above these ratings may cause permanent damage or degrade reliability.

Input Levels (Bal or Unbal) (at Audio Input Gain = 0dB) at 1 kHz	Nominal (0dB) Indicated by Audio Level Display " -> - <- "	Overload Warning Indicated by Audio Level Display "!"	Absolute Max. Rating Stresses above these ratings may cause permanent damage or degrade reliability.
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)