

IRMTX750

Modulator & Radiator



Key Features

- 750mW Power covers up-to 100 square metres
- High frequency modulation, free from lighting interference.
- Simple installation with included bracket
- Uses standard connectors
- Switchable Mic, Line and Mic with Phantom on XLR
- Switchable VOX operation for power saving
- Slave available for larger area coverage

Description

The IRMTX750 is a compact combined modulator and radiator for infrared assistive listening systems, and forms the main transmitter in the Infra~Hear™ range of products.

Using high frequency modulation at 2.3MHz the Infra~Hear™ products are immune to interference from energy saving lighting and plasma displays.

Due to its compact design the unit can be discreetly placed in classrooms and meeting rooms, and is the ideal choice for small to medium sized locations, as well as museums and tours where defined coverage is required.

Area coverage can be increased by using up-to four slave units, increasing flexibility.

By using an industry standard universal input, the system can be stand-alone using a microphone (with 12VDC phantom available to allow use of electret types) or connected to the main sound system using a balanced line connection for the highest quality sound.

An Automatic Gain Control (AGC) provides the correct modulation signal over a wide range of audio inputs, ensuring maximum modulation with no overload.



Infra~Hear



Coverage

By designing the radiator for a single frequency, the coverage has been optimised to suit most class rooms and meeting rooms.

The high forward power also means better infill coverage from reflections reducing the number of radiators required.

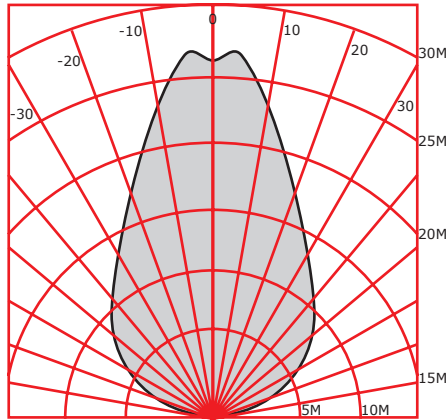
Architects Specification.

The unit shall be a wideband infrared modulator with a nominal deviation of ± 50 kHz. The Carrier frequency must be 2.3MHz. The unit must have a 3-pin XLR socket AF input with a switchable input gain from 60dBV to -4 dBV and a switchable 12VDC Phantom available to power electret type condenser microphones. The unit shall have an AGC circuit to cover variances in the signal level with a range of 20dB minimum. The AF frequency response must be 30-18,000 Hz, with THD equalling $<1\%$. The AF signal-to-noise ratio shall be better than 60 dB(A) rms. The RF output impedance shall be approx. 75Ω . There shall be 10 diodes. The maximum coverage area shall be approximately 100 m, with a radiating power of 750mW. The operating voltage shall be 9V AC or 24VDC supplied via a standard 2.1mm DC Jack. The current consumption shall be 250 mA. The dimensions shall be approx. 132mm x 132mm x 115mm with the supplied bracket and weigh approx. 700g. The unit shall be the Current Thinking IRMTX750.

Technical Specification

Modulation	wideband FM	Max. coverage area	approx. 100 m ²
Nominal deviation	± 50 kHz	Radiating power	approx. 750mW
Carrier frequency	2.3 MHz	Operating voltage	9V AC/ 24V DC
AF input	3 pin XLR	Power connector	2.1mm DC Jack
AF input Range	-60dBV to +4dBV	Current consumption	approx. 250 mA
AGC Range	20dB	Dimensions	
AF frequency response	30-18,000 Hz	Height	78mm
THD (1 kHz, nom. dev.)	$<1\%$	Width	132mm
AF signal-to-noise ratio	>60 dB(A) rms	Depth	38mm
RF output	3.5mm mono jack		115mm with bracket
Output impedance	approx. 75Ω	Weight	approx. 700g
IR diodes	10 @ 875nm		

Polar Pattern



All information believed to be correct at time of printing E&OE, Current Thinking operate a policy of continuous improvement; always confirm specification details before purchase. Designed and manufactured in the North East of England by Current Thinking Ltd, registered in England 4610461. Unit 91 Silver Briar, Enterprise Park East, Sunderland, SR5 2TQ, UK.

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