

TeleDelta DFM

Digital FM Modulator / Exciter for Radio Rebroadcast

The TeleDelta DFM digital FM modulator/ exciter is a professional 1RU rack-mount platform for FM rebroadcast in tunnels, underground environments and In-building FM redistribution systems

Compact in design the DFM can ingest digital audio (AES / EBU) along with analog audio sources. The TeleDelta DFM is a full band FM modulator / exciter offering RF output power adjustment across the complete FM band (87 ~ 108.00Mhz)

User setup and control is available via the front panel LCD and push-button controller along with remote management via RS232.



Key Features:

- Digital AES / EBU audio inputs
- Analog and SCA (optional) inputs
- Low latency DSP based stereo generator with variable 19kHz pilot deviation
- Adjustable frequency output across FM bands 87~108Mhz
- Adjustable RF output level
- Front panel LCD display / control
- RS232 remote control interface for PC or other compatible device
- RF power mute can be activated without turning off power supply.

Specifications are correct at time of print. For latest information please contact IPTL www.teledelta.com



TeleDelta DFM Technical Specification

| | |
|-------------------------------|--------------------------------|
| RF Output Frequency | 87.00MHz~108.00MHz, Step 10kHz |
| Output Power | -8dBm ~ +10dBm |
| Output Connector | BNC (50 ohm) |
| Spurious Free Dynamic Range | <-70dB |
| Residual Amplitude Modulation | <-50dB |
| Carrier Frequency accuracy | ±200Hz |
| Frequency Stability | 1x10(^6) |
| Modulation Deviation | 0~120KHz |
| Pilot Frequency | 19kHz±0.1Hz |
| Pilot Amplitude | 0~12KHz (10% 7.5K) |
| Analog Audio Input Impedance | 600 ohm Balanced |
| Analog Audio Input Level | -12dBm~+8dBm, Step 0.1dB |
| Digital Audio Input Impedance | 110 ohm Balanced |
| Digital Audio Input Level | 0.2~10Vpp |
| Digital Audio Sample Rate | 30kHz~96kHz |
| Audio gain | -15dB~+15dB, step 0.1dB |
| Pre-emphasis | 0µs, 50µs, 75µs |
| LR Channel Level Difference | < 0.1dB (100% Modulation) |
| Frequency Response | < ±0.1dB, 30Hz~15000Hz |
| THD | < 0.1%, (30Hz~15000Hz) |
| Stereo Separation | > 50dB, (30Hz~15000Hz) |
| SNR | > 70dB, (1kHz 100% Modulation) |
| SCA | BNC (optional) |
| SCA modulation amplitude | 7.5KHz (0dBm) |
| SCA center frequency | 67KHz |
| SCA frequency deviation | ±4KHz |
| Power Supply | 220-240V |
| Dimensions | 1RU, (485mm×305mm×44mm) |
| Weight | 3kgs |
| Ambient Temp | 5~+40 degrees |
| Relative Humidity | <95% |

| Ordering Information | |
|----------------------|--|
| DFM-AES | 1RU FM Generator with 1x (selectable) AES Digital + Analog Input |
| DFM-ANALOG | 1RU FM Generator with 1x Analog Input |

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