

# DFM SLIM EXC 30-300

FM Digital Exciter



## Main Characteristics

- Direct-to-Channel RF frequency generation for superior RF and audio performance
- Up to 300 watt for flexible deployment
- The full complement of audio inputs - L&R analog, composite, mono analog and AES are concurrently available for primary and backup source assignment
- Ethernet connectivity links for programming and data service transmission
- Universal power supply with power factor correction (PFC) and high/low voltage detection
- External frequency reference input for locking to GPS or other external source
- A basic RDS Encoder is included, the connection for external SCA or RDS encoder are provided.
- RF output low-pass filter is included for use directly on air
- LCD menu system eases setup, operation, and maintenance
- 1 ASI input (PID Filtering) - optional

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## GENERAL

<b>RF Power Output:</b>	30 – 300W
<b>Output Impedance:</b>	50 ohms nominal
<b>VSWR:</b>	Rated power into 1.5:1 VSWR. Open and short circuit protected at all phase angles
<b>Frequency Range:</b>	87.5MHz to 108MHz; 100kHz increments, 50kHz-10kHz when specified
<b>Frequency Stability:</b>	Internal VCXO: +/-1Hz, -10° C to +50° C, External Output: +/- accuracy of reference source
<b>Audio Inputs:</b>	AES/EBU (wire), L&R analog, MPX, SCA/RBDS/RDS. internal RBDS/RDS generator Internal stereo encoder generator
<b>Modulation Type:</b>	Digitally generated FM Digital direct Up-conversion
<b>Modulation Capability:</b>	Up to 300kHz
<b>Asynchronous AM S/N Ratio:</b>	80dB below rated power reference carrier with 100% AM modulation at 400Hz, 75usec. de-emphasis with no FM modulation present
<b>Synchronous AM S/N Ratio:</b>	60dB below rated power reference carrier with 100% AM modulation at 400Hz, 75usec. de-emphasis with FM modulation +/- 75kHz at 400Hz
<b>Spurious and Harmonic:</b>	85dB or better; low pass filter standard

## AES/EBU

<b>Operational Modes:</b>	Stereo, mono
<b>Input Level:</b>	-24- 0 dBfs for 100% modulation; typ. -6dBfs
<b>Impedance:</b>	110 ohms
<b>Connector:</b>	BNC
<b>Amplitude Response:</b>	+/- 0.01dB, 20Hz to 15kHz
<b>THD:</b>	0.006% or better
<b>S/N Ratio:</b>	80dB or better below 100% modulation @ 400Hz
<b>Stereo Separation:</b>	80dB, 20Hz to 15kHz
<b>Linear Crosstalk:</b>	80dB below 100% modulation; 20Hz to 15kHz; main to sub and sub to main
<b>Pilot Stability:</b>	+/- 0.1Hz, 0 degrees C to +50 degrees C

## MECHANICAL

Dimensions (WxHxD)	Weight (approx.)
mm 484x45x540	Kg 8

## AC MAINS

<b>AC Input:</b>	90 to 264VAC; 47-63Hz
<b>Power Consumption</b>	400VA @ max power output
<b>Power Factor:</b>	> 0.97
<b>Surge Protection:</b>	Tested with IEEE C62.41-1991 recommended waveforms for location category B3 and IEC 801-4 standard waveforms for severity level 4
<b>Regulatory:</b>	FCC; DOC; CE; CCIR; IEC 215 Safety

## ENVIRONMENTAL

<b>Temperature Range:</b>	-10° C to +50° C
<b>Altitude:</b>	10,000 ft (3048 m)
<b>Humidity:</b>	95% maximum, non-condensing

## MPX

<b>Input Level:</b>	0-12 dBu typ. 6dBu for 100% modulation
<b>Impedance:</b>	Unbalanced: 2k ohms
<b>Connector:</b>	BNC
<b>Amplitude Response:</b>	+/- 0.02dB; 20Hz to 53kHz; 0.1dB; 53kHz to 99kHz
<b>Phase Response:</b>	+/- 0.1 degree from linear phase; 53kHz to 100kHz
<b>THD:</b>	0.02% or less
<b>FM S/N Ratio:</b>	80dB below 100% modulation @ 400Hz

## STEREO/MONO Analog Input

<b>Operational Modes:</b>	Stereo, Mono (L only)
<b>Input Level:</b>	0-12 dBu typ. 6dBu for 100% modulation
<b>Impedance:</b>	600 ohms or 2k ohms
<b>Connector:</b>	Mini XLR
<b>Amplitude Response:</b>	+/- 0.2dB; 20Hz to 15kHz
<b>THD:</b>	0.02% or less; 20Hz to 15kHz
<b>Linear Crosstalk:</b>	80dB below 100% modulation; 20Hz to 15kHz;
<b>FM S/N Ratio:</b>	70dB below 100% modulation @ 400Hz