

HSDM Series™ 1.2 Kilowatt Hi Power Multi-Channel Transmitters

Video/Data Transmitter, Analog Service (Digital Compatible)
Model HSDM-1.2KW

The EMCEE HSDM^{PowerPlus} Series™ represents the highest evolution in a high power single conversion multi-channel S-Band transmitter. Inherently low distortion minimizes the need for extensive corrective circuitry and provides for excellent performance in high power analog or digital transmission applications. A new generation EMCEE designed synthesizer/local oscillator chain provides versatile frequency configuration together with GPS/NAVSTAR or LORAN synchronizing capability for high precision frequency control and co-channel interference reduction in analog operations. The chassis design incorporates a building block approach for amplifiers and power supplies, providing an eloquent architecture and an inherent soft-fail design approach. A failed amplifier or power supply does not constitute a service outage. Hot-swappable plug-in power supplies provide for simple change out and optional N+1 redundancy. Front panel monitoring of all internal voltages and forward and reflected power is provided in an easy to read LCD display. LED status indicators provide easy monitoring of all power supply and amplifier functionality. Remote control interfacing for critical transmitter functions and monitoring is available via the rear chassis connections (optional). The HSDM^{PowerPlus} Series is the perfect choice for multi-channel transmission with a single transmitter.



Features

- High Reliability
- Modular Design
- Analog & Digital Compatible
- Fully Synthesized
- LED Status Monitoring
- Minimum Operator Adjustments

Benefits

- Minimum Downtime
- Ease of Maintenance
- Versatility
- Built-in Frequency Flexibility
- Simple Field Troubleshooting
- Simplified Operation

SPECIFICATIONS – HSDM-1.2KW TRANSMITTER

<i>ANALOG (VISUAL) SERVICE</i>		<i>DIGITAL SERVICE</i>	
Output Power	1200 Watts Peak	Output Power	300 Watts Average
Emission	5M75C3F	Emission	6M00D7W
Color Transmission	NTSC, PAL, SECAM	Modulation Mode	QPSK/16/64/256QAM
Output Frequency	2.5 - 2.7 GHz	Output Frequency	2.5 - 2.7 GHz
Frequency Stability	±1 KHz	Frequency Stability	±1 KHz
Spurious Products ¹	-60 dB	Spectral Mask	Per FCC 27.53
Intermodulation (IM3)	Unmeasurable	Spurious Products	<-60dB
Differential Phase	±2°	Envelope Delay	±5ns
Differential Gain	3%	Frequency Response	±0.5dB
Low Frequency Linearity	3%	Error Vector Magnitude	≤1.5%
Envelope Delay	Better than FCC 73.687 (a) (3)	Output Power Stability	±0.3dB
Sideband Response	Better than FCC 74.936 (b)	Digital Signal to Noise	34dB
Frequency Response	±0.5 dB	Hum & Noise	<-60dB
Output Power Stability	±0.3dB	Phase Noise (Synth)	-100dBc @ 10 KHz
RF Regulation	2%	Harmonic Output	<-60dB
Signal to Noise	55dB	IF Input Level	-5 to -15 dBm
Hum and Noise	-55 dB	Input Impedance	75 Ohm/BNC
Phase Noise (Synth)	-100 dBc @ 10 KHz	Output Impedance	50 Ohm/N
K Factor (2T)	2%	GENERAL/MECHANICAL CHARACTERISTICS	
ICPM	3°	(Specific to Both <i>Analog & Digital</i> Service)	
Harmonic Output	-65dB	Operating Temperature	0° to +50°C
Input Impedance (Composite)	75 Ohm/BNC	Maximum Relative Humidity	95%
Output Impedance	50 Ohm Type N	Weight/Dimensions	250 lbs. 48"Hx22"Wx30"D
ELECTRICAL CHARACTERISTICS		Power Requirements	85~264 VAC ±15%, 47~63 Hz
<u>ANALOG</u> (AURAL) SERVICE		Power Consumption/PF	8500 Watts/.95
Output Power	-16 dB Ref. to Visual	Multi-Channel Performance Characteristics	
Emission	250KF3E	Power Output/Channel @ 50dB CTB, 60dB C/N	
Frequency Tolerance	NTSC +4.5 MHz ±100 Hz CCIR+5.5 & 6.5 MHz ±100 Hz	31 Channels	3.5 Watts/Channel
Audio Distortion	1.0%	16 Channels	7.1 Watts/Channel
FM Noise	-60 dB	8 Channels	14.9 Watts/Channel
AM Noise	-60dB	4 Channels	30.1 Watts/Channel
Frequency Response	±1 dB		
Deviation	25 KHz Mono, 50 KHz Stereo or per CCIR Requirements		

Specifications Subject to Change

Contact the factory for output power/channel data for all HSDM models.