



PolyEco 1000

FULL DIGITAL FM TRANSMITTER

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PolyEco is the innovative family of high-end digital FM transmitters of Sielco. They are especially suited as high performance power system exciters or compact low-mid power transmitters. The same cabinet may in fact be fitted with 50, 100, 300, 500, 1000W power stage (PolyEco50, 100, 300, 500, 1000).

Lightness, compactness and ease of use along with "Full-Digital" processing make them along the most innovative and versatile equipment currently on the Broadcast market and allow performance and functionality nowadays unimaginable with current analog ones, assuring the absolute compatibility with all analog and digital audio sources.

All features can be controlled via the large touch-screen display 4.3" or remotely. Many advanced features are inside by default in the basic version such as: stereo and RDS encoder, audio change-over, remote-control via LAN and SNMP, "FFT" spectral analysis of the audio sources, SFN synchronization and much more. Other functionalities are then available as options (audio streaming, MP3 player, N+1, ecc.).



TECHNICAL DATA

Frequency range		from 87,5 to 108 MHz (other ranges available on request)
Transmitter tuning steps		1 kHz - fine tuning with 10 Hz steps
Frequency error		Error < 50 Hz not synchronized, <1Hz synchronized
GPS Synchronization	10MHz / 1PPS	Internal/external with digital PLL
Modulation Type	FM	DDS , Direct Digital Synthesis 256kF3E
Audio and MpxLR input level		from -6 to +15 dBu @ 75 KHz deviation, 0.1dB steps
Auxiliary input channel level (RDS/SCA)	SCA	from -15 to +6 dBu @ 7,5 KHz deviation
	RDS	from -24 to -3 dBu @ 2 KHz deviation
Digital audio input	AES/EBU	da - 6 a +12 dBfs @ 75 KHz deviation , step of 0.1dB
Modulation distortion	75 KHz dev.	≤0.02%
Audio backup	μSD / USB	MP3 48kHz
S/N ratio, mono	30÷20000Hz	>76 dB, typical 83
	CCIR	>75 dB, typical 79
S/N ratio, stereo	30÷20000Hz	>72 dB, typical 77
	CCIR	>68 dB, typical 72
Audio channels frequency response	30÷15000 Hz	±0.1 dB
MPX input frequency response	30÷75000 Hz	±0.1 dB - (75 ÷ 100 kHz in according to the filter selected)
Pre-emphasis time constant		0μS, 50μS (CCIR), 75μS (FCC)
Detached LF Channel		Mpx, L, R, AES/EBU, Aux, SCA (all main plus reserve), SD Memory, Audio Streaming
Modulation Delay		Digitally programmable from 0,1 μs to > 3s
Stereo coding		According to ITU-R BS.450-3, pilot frequency
Stereo separation		>55dB
Pilot frequency		19kHz ±0.1Hz, adjustable level 0 – 12%
RDS generator		According EN62106
		PI, PS, ECC, PTY, TP/TA, AF, MS, DI, CT
Rated RF output power		1000W
Output power ALC stability		±3%
Harmonic and spurious emissions		<75dB (harmonic), <80 dBc (spurious)
RF output connector		7/16"
Monitor ports and remote control		Analogic Mpx on BNC, parallel control on SubD9, RS232, RS485, 10/100T serial ports, GSM, Web server, SNMP
Power supply		100÷250 Vac, 1375 W max at nominal power
Operative temperature range	Suggested	da 0 a 35 °C
	Extreme	from -10 to +45 °C (50°C max with derating)
Relative humidity		Up to 95% not condensing
Dimensions (WxHxD) and weight		483x88x455 mm, 10kg max
Reference norms		ETSI EN 302 018 v2.1.1

Note: The data are subject of variations without notice.

