PM 1000/KCL 1000
TECHNICAL CHARACTERISTICS

RF Data		
	Output frequency range	87.5 ÷ 108 MHz
	Output frequency setting	Synthesized with PLL, 10 kHz step (front panel digitswitches microprocessor controlled with /C option)
	Output impedance	50 Ω
	Output connector	DIN 7/16"
	Continuos output power	from 0 to 1050 W front panel adjustable
	Thermal drift (0 ÷ 50° C)	± 1 kHz (better on request)
	Aging drift	± 300 Hz year
	Harmonics	< - 72 dBc
	Spurious	< - 80 dBc
AF Data		
	Mono operations:	
	Input level	-10÷+12 dBm adj.
	Input connectors	XLR female/bal.
	Input impedance	600 Ω
	Bandwidth (± 0.25 dB)	20 Hz÷15 KHz
	Pre-emphasis	50/75 μs selectable and bypassable
	Deviation from pre-emph. curve	± 0.5 dB
	FM S/N ratio (±75 kHz deviation at 1 kHz, 50 μs de-emph.)	≥ 80 dB (typ. 82 dB)
	THD	< 0.1 % (typ. 0.08 %)
	19 kHz attenuation	≥ 55 dB
	AM syncro residual (ref. 100% mod.)	< -64 dB
	AM asyncro residual (ref. 100% mod.)	< -68 dB
	Stereo operations (MPX input):	
	Input level	-10÷+12 dBm
	Input connector	BNC, unbal.
	Input impedance	10 Ω
	Bandwidth (± 0.1 dB)	20 Hz÷100 KHz
	FM S/N ratio (±75 kHz deviation at 1 kHz, demodul., 50 μs de-emphasis)	≥ 74 dB (typ. 76 dB)
	Stereo separation (20 Hz÷15 kHz)	≥ 62 dB (typ. 65 dB)
	THD	< 0.2% (typ. 0.1 %)
Stereo coder characteristics (option /S):		
	Input connectors (L&R)	XLR, bal.
	Input impedance	600 Ω
	Input levels	-10÷+12 dBm
	19 kHz attenuation	≥ 55 dB
	Bandwidth (± 0.25 dB)	20 Hz÷15 KHz
	S/N ratio (±75 kHz dev. at 1 kHz, demodul., 50 μs de-emphasis)	≥ 80 dB (typ. 82 dB)
	Stereo separation (20 Hz÷15 kHz)	> 65 dB (typ. 68 dB)
	THD	< 0.1% (typ. 0.08%)
SCA 1, SCA 2, SCA 3		
	Input level	2.2 Vpp per 7.5 kHz dev.
	Bandwidth (± 0.25 dB)	40 ÷ 100 kHz
Metering	± 12 V, + 48 V, forward and reflected power, MPX level , 19 kHz, L & R, deviation	
Alarms	VSWR, Overtemperature	
Power supply		
	Operating voltage	110/220/240 Vac ± 10 %, 50/60 Hz single phase
	Power consumption (at maximum output power)	1670 VA
	Battery operation (opt.)	48 Vdc
Operating conditions		
	Cooling	air forced, 24Vcc axial fan
	Temperature range	- 10° ÷ + 45° C
	Humidity	95% max.
Weight and size		
	Weight	58 kg
	Dimensions (W x H x D)	433 x 175 x 585 mm
	Cabinet	19"x 4U
Options		
	Front panel frequency setting	/C
	Stereo coder	/S
	Audio processor	/P
	Remote control interface	/R
	FSK IDer. for FCC automatic identification system	/K
	High frequency stability < 300 Hz	/HS
	Additional 2 x SCA/RDS inputs	/SCA3
	48 VDC power supply	/VDC-48

Features and specifications subject to change without notice.

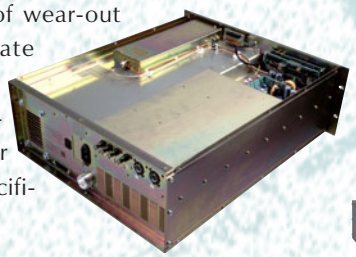
DB Elettronica Telecomunicazioni S.p.A. - Via Lisbona, 38 - Zona Industriale Sud - 35127 Padova - Italy - Tel. ++39 - 0498 700 588 - Fax ++39 - 0498 700 747

1 kW COMPACT FM TRANSMITTER
PM 1000/KCL 1000

PM 1000

- **The PM 1000 and KCL 1000 transmitters** are designed to operate on 87.5 - 108 MHz frequency range for FM radio broadcasting appliances with RF output power continuously adjustable from 0 to 1050 W.
- **Audio performances.** The PM 1000 include the standard features of the basic exciter KE 20, while the KCL 1000 have the superior analogue or digital audio performances of. the new graphic LCD screen exciter KCL 30.
- **Low dimensions and weight.** Designed to fit into space-limited facilities, PM 1000 and KCL 1000 transmitters feature one of smallest dimensions and weight in the industry (17x43x55 cm and 28 kg only), simplifying transport, installation and maintenance.
- **COLD-FET™ technology**. This revolutionary technology, a DB's international patent, is used in the PFS series transmitters to optimize the MOSFET's output matching in order to obtain broadband amplification stages without any RF component. This means:
  - higher RF efficiency > 83%
  - lower heating
  - higher devices safety
  - higher total reliability
  - low AC power consumption

- **MosFets Safety.** The COLD-FET™ technology permits to obtain from the PA the full power rating reducing of almost 15% the MosFets recommended operating DC voltage and current.
- **Uninterrupted service.** A true proportional foldback protection circuit keep the transmitters always on the air reducing the output power in case of:
  - antenna VSWR
  - environmental over-temperature
  - failure in one or more amplification modules
  - failure in one or more power supply modules
- **Frequency-agile** PM 1000 and KCL 1000 transmitters are fully broadband. All RF stages, comprising the output filters, can operate on any FM channel, selectable via a integrated digital selector (PM 1000) or from front panel (KCL 1000) or remotely (optional).
- **Automatic power control** circuit maintains constant RF output with precision (±1%).
- **Advanced controller** provides full front panel transmitter control capabilities and extensive metering of individual modules. Standard or special remote control interface is also available.
- **Power supply.** A rugged, high-efficiency (> 93%) power supply support each PA module and can be on-air removed and replaced. Power supplies are protected from incoming AC line overvoltage, overcurrent, transient and lightning.
- **High redundancy.** High on-air reliability is assured by using a power amplifier module comprised of four individual PA's, with independent power supply.
- **Cooling:** an oversized low noise air cooling system with internal fan extends transistors life
- **Low overheating.** Thanks to the high RF efficiency, due to COLD-FET technology, the heatsink overheating respect to the environmental temperature is limited at + 10°C only. This permits to operate even in overheated sites.
- **Low AC power consumption.** The high overall efficiency means a reduction of AC power consumption and operating costs.
- **Low maintenance.** The overall operating costs are reduced and the maintenance is optimised for three year intervals thanks to the absence of wear-out mechanism in solid state devices.



- **Meets or exceeds** international standards for safety and electrical specifications.