

# 30-60-120W Exciter

## DPM Series



- **The DPM series** are designed to operate between 87 -108 MHz frequency range for FM radio broadcasting appliances with RF output power completely adjustable from 0 to 30-60-120 watts by external control, Ideal as stand-alone transmitter or versatile exciter for power amplifiers.
- **No tuning or adjustments required.**
- **Digital stereo coder.** High performances built-in digital stereo coder with stereo separation ( $\geq 65\text{dB}$ ) and signal/noise ratio ( $\geq 85\text{dB}$ ) for a top sound-quality.
- **Remote control.** Full remote control capability with all main parameters. Power output adjustment, on/off, alarms reset, Power Output, Vswr, frequency deviation measurement and alarms status are the main possibilities of remote control function.
- **USB port.** For direct pc o modem connection and remote control ready
- **Top quality sound.** The generated signal is characterized by an excellent signal/noise ratio and by negligible residual AM and FM. All this guarantees the best quality of the broadcast signal.
- **High frequency stability.** In short and long terms is assured by Digital Phase Locked Loop circuit with low drift quartz.
- **Deviation limiter.** Limits the maximum frequency deviation to a value within the international requirements. This is to avoid adjacent channels invasion in case of accidental over modulation
- **Other functions:** Possibility to select 7 frequencies programmed for systems N+1. Control of the transmission and modulation parameters from the frontal panel display.
- **Electronic protections.** In case of over-voltage or transmitting frequency error (LOCK) or mismatching (VSWR) or over-temperature (TEMP) the power output is automatically reduced to keep your station on the air. Every alarm event is displayed on the frontal panel.
- **Option.** Digital input AES/EBU. External reference oscillator (10 Mhz input SMA 0dBm).



**Analog or Digital Exciter**

# Technical Characteristics



## Stereo operations (MPX input)

|  |                |
|--|----------------|
| Input level  | -10÷+12 dBm    |
| Input connector  | BNC, unbal.    |
| Input impedance  | 600 Ω or 10 kΩ |
| Bandwidth (±0.1dB)   | 20 Hz÷100 KHz  |
| FM S/N ratio (±75kHz deviation<br>at 1kHz, demodul., 50μs de-emphasis) | ≥ 78 dB        |
| Stereo separation (20 Hz÷15 kHz)                                       | ≥ 65 dB        |
| THD  | < 0.05%        |

## 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 |
| Deviation from pre-emph. Curve                             | ± 0.5 dB            |
| FM S/N ratio (±75kHz deviation<br>At 1kHz, 50 μs de-emph.) | ≥ 85 dB             |
| THD  | < 0.05 %            |
| 19 kHz attenuation   | ≥ 55 dB             |
| AM syncro residual (ref. 100% mod.)                        | < -64 dB            |
| AM asynco residual (ref. 100% mod.)                        | < -68 dB            |

## RF Data

|                           |   |
|---------------------------|---|
| Output frequency range    | 87 ÷ 108 MHz                                |
| Output frequency setting  | Synthesized with PLL,                       |
| Output impedance          | 50 Ω  |
| Output connector          | N   |
| Continuous output power   | from 0 to 30-60-120W front panel adjustable |
| Thermal drift (0 ÷ 50° C) | ± <1kHz                                     |
| Aging drift               | ± 250 Hz                                    |
| Harmonics                 | < -75dBc                                    |
| Spurious                  | < -80dBc                                    |

## Power Supply

95-130Vac or 195-265Vac selctable  
single phase 50/60 Hz ±2%  
Power factor > 0.9 –

## Consumption

100VA (30WRF)-150VA(60WRF)  
250VA(100WRF)

## Operating conditions

Ambient temperature operating range -10 to +45 °C.  
Maximum permissible Rel. Humidity 90% not  
condensing.  
Cooling air forced