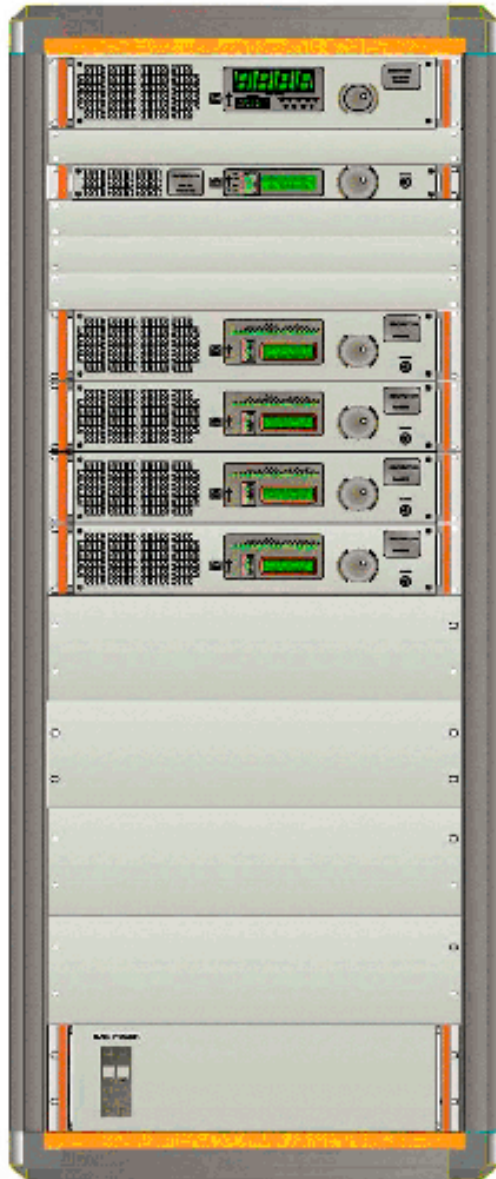


Digital 5000 Watts FM Transmitter *Hi performe, Fully Customizable*



FEATURES

Model: BIC5000SD

- * VERY COMPACT CABINET 30 U RACK 19"
- * VERY HIGH EFFICIENCY > 70%
- * HIGH REDUNDANCY, FOUR SEPARATE INDEPENDENT AMPLIFIERS
- * MOSFET AMPLIFIER WITH OPTIFET® CIRCUITS
- * INTERNAL INPUT SWITCHED 50W DUMMY LOAD TO MATCH EXCITER OUTPUT IMPEDANCE IN ANY CONDITION, ALSO IN ST-BY STATUS, FOR EACH AMPLIFIER
- * A.P.C. AUTOMATIC POWER CONTROL FOR EACH AMPLIFIER
- * ULTRA-FAST PROTECTION AGAINST DANGEROUS SITUATIONS SUCH AS EXCESS OUTPUT POWER OR VSWR, OVERDRIVE AND OVERTEMPERATURE
- * SOLID-STATE BROADBAND AMPLIFIERS WITH GUARD CIRCUITS AND INTEGRATED HARMONIC FILTER
- * FULL INTERACTION WITH EXTERNAL DEVICES USING THE TELEMETRY CONNECTOR
- * MEASUREMENT AND DISPLAY OF AMPLIFIER'S WORKING PARAMETERS
- * INTELLIGENT MONITORING AND FAULT DETECTION SYSTEM, AS WELL AS REMOTE CONTROL VIA BIT BUS, OR OPTIONALLY VIA A PARALLEL REMOTE-CONTROL INTERFACE
- * HIGH RELIABILITY THROUGH THE USE OF MICROSTRIP TECHNOLOGY

“Transmite Señales Digitales ó Análogas”



Digital 5000 Watts FM Transmitter *Hi performe, Fully Customizable*

Model: BIC5000SD

GENERAL

Power Output: 5.000W adjustable from front panel.

RF Output Impedance: 50 ohm.

RF Output Connector: "7/8" type.

Monitor RF: -54 dBc, BNC connector

VSWR: 1.5:1 Maximum with automatic fold-back at higher VSWR

Frequency Range: 87.5 ÷ 108.00 MHz, on request 66 ÷ 74 MHz (OIRT), 76 ÷ 90 MHz (JPN) Programmable in 10 KHz steps. **Frequency Stability:** ±1 ppm from -5 to 45°C. **Reference:** TCXO 12.8 MHz. Can be synchronized by 1-2-2.5-5-10 MHz self select external clock (option).

Frequency Control: Synthesizer μ processor control.

Type of Modulation: Direct frequency modulation of carrier frequency.

Lock in Time: Typ. 4 second.

Off Lock Attenuation: ≥ -80 dBc.

Modulation Capability: ±150 KHz.

Modulation Mode: Mono, Stereo, Multiplex, SCA, RDS, Aux.

Preemphasis: Flat/50/75 μ s selectable from front panel.

Asynchronous AM S/N Ratio: -60 dB below reference carrier with 100% AM modulation @ 400 Hz, without FM modulation. **Synchronous AM S/N Ratio:** -60 dB below reference carrier with 100% AM modulation @ 400 Hz with FM modulation ±75 KHz @ 400 Hz.

RF Harmonics: Exceeds EBU/CCIR/FCC requirements.

RF Spurious: Exceeds EBU/CCIR/FCC requirements.

MONAURAL OPERATION

Audio Input Impedance: 600 ohm balanced, 10 Kohms unbalanced.

Audio Input Level: -3 to +9 dBm.

Input Connector: XLR female.

Audio Frequency Response: ±0.15 dB, 30 Hz to 15 KHz.

Total Harmonic Distortion + Noise: 0.03% @ 400 Hz

Intermodulation Distortion: 0.03%, 1 KHz/1.3 KHz, 1:1 ratio

Transient Intermodulation Distortion: 0.03%, 2.96KHz square wave and 14 KHz sine wave. **FM S/N Ratio:** -89 dB RMS detector, -85 dB below ±75 KHz deviation, 50 μ s deepphasis, weighted.

MULTIPLEX OPERATION

Composite Input Impedance: 1.2 Kohm unbalanced.

Composite Input Level: -3 to +6 dBm

Input Connector: BNC female.

Composite Amplitude Response: ±0.2 dB, 30 Hz to 100 KHz.

Total Harmonic Distortion + Noise: 0.03% @ 400 Hz

Intermodulation Distortion: 0.03%, 1 KHz/1.3 KHz, 1:1 ratio

Transient Intermodulation Distortion: 0.03%, 2,96 KHz square wave and 14 KHz sine wave. **FM S/N Ratio:** -89 dB RMS detector, -85 dB below ±75 KHz deviation, 50 μ s deepphasis, weighted.

STEREO OPERATION

Audio Input Impedance: 600 ohm balanced, 10 Kohm unbalanced.

Audio Input Level: -3 to +9 dBm.

Input Connector: XLR female.

Audio Frequency Response: ±0.15 dB, 30 Hz to 15 KHz.

Total Harmonic Distortion + Noise: 0.03% @ 400 Hz

Intermodulation Distortion: 0.03%, 1 KHz/1.3 KHz, 1:1 ratio

Transient Intermodulation Distortion: 0.03%, 2.96 KHz square wave and 14 KHz sine wave.

FM S/N Ratio: -79 dB RMS detector, -75 dB below ±75 KHz deviation, 50 μ s deepphasis, weighted.

Stereo Separation: 30÷80 Hz ≥ -53 dB, 80Hz±15 KHz ≥ -65 dB (Typ. 70 dB).

Crosstalk attenuation: Main to Sub -40 dB 30 Hz to 15 KHz (typ. -55 dB 100 Hz to 8 KHz).

38 KHz Suppression: ≥ -70 dB (typ. -85 dB).

Pilot Frequency: 19 KHz ± 1 Hz Phase

Pilot: ± 2° adjustable **Output Pilot:** 1 Vpp., BNC female

Audio Filter Attenuation: ≥ -55 dB @ 19 KHz, > -45 dB 20 KHz to 100 KHz.

Modes: Stereo, Mono L+R, Mono L, Mono R.

AES/EBU OPERATION

Input Connector: XLR female, optical TOS-LINK.

Data Format: S/PDF, AES/EBU, IEC958, EIAJCP340/1201.

D/A Converter: 24 bit.

Sampling Frequency: from 32 to 96 KHz.

SCA, RDS, AUX OPERATION

Input Impedance: 3 Kohm.

Input Level: -3 to +6 dBm.

Frequency Response: ±0.2 dB, 40 KHz to 100 KHz.

Input Connector: BNC female. Most SCA, RDS, AUX, performance parameters are determined primarily by the generator used.

AUXILIARY CONNECTIONS

USB: connector Type B female front panel.

Nº2 RS485: Serial Interface connector RJ45 back panel.

Telemetry Interface: connector DB25F back panel.

External Clock: connector SMA female (option).

OPTIONS

External clock: for PLL synchronizing purpose 1-2-2.5-5-10 MHz external reference oscillator with self selection of the incoming frequency.

AES/EBU Digital Audio Input.

RDS/RBDS Coder programmable via PC.

OIRT or JPN version.

ELECTRICAL

AC Input Power: 230 VAC/400 +10% - 15%, 50/60 HZ single phase or 3-phase

AC Power Consumption: 7,000VA @ 5,000W

Cos Φ > 0.98

Cooling: Forced air

ENVIRONMENTAL

Operating temperature: -5°C to +45°C.

Guaranteed performance temperature: 0°C to +40°C.

Max Operating Altitude: 3000 mt.

Relative Humidity Range: 0 to 90%.

PHYSICAL DIMENSION

Mounting: 30 unit cabinet

Size: 570mm.(W) x 800mm.(D) x 1500 mm. (H)

Weight: ~ 140 Kg.

Features and specifications subject to change without notice