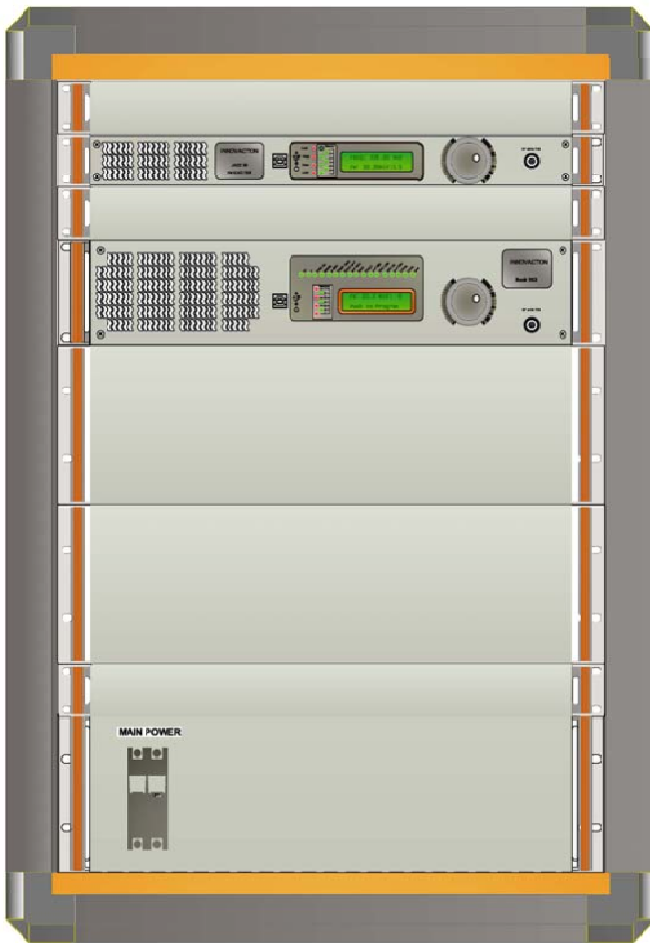


## Digital 650 Watts FM Transmitter *Hi performe, Fully Customizable*

### FEATURES

Modelo: BIC650SD



- VERY COMPACT CABINET 15 U RACK 19"
- VERY HIGH EFFICIENCY > 70%
- MOSFET AMPLIFIER WITH OPTIFET® CIRCUITS
- INTERNAL INPUT SWITCHED 50W DUMMY LOAD TO MATCH EXCITER OUTPUT IMPEDANCE IN ANY CONDITION, ALSO IN ST-BY STATUS
- A.P.C. AUTOMATIC POWER CONTROL
- 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”**



## Modelo: BIC650SD

### GENERAL

**Power Output:** 1.300W 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  $\mu$ processor control.  
**Type of Modulation:** Direct frequency modulation of carrier frequency.  
**Lock in Time:** Typ. 4 second.  
**Off Lock Attenuation:**  $\geq$  -80 dBc.  
**Modulation Capability:**  $\pm$ 150 KHz.  
**Modulation Mode:** Mono, Stereo, Multiplex, SCA, RDS, Aux.  
**Preemphasis:** Flat/50/75  $\mu$ 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  $\pm$ 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:**  $\pm$ 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

### MULTIPLEX OPERATION

**Composite Input Impedance:** 1.2 Kohm unbalanced.  
**Composite Input Level:** -3 to +6 dBm  
**Input Connector:** BNC female.  
**Composite Amplitude Response:**  $\pm$ 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  $\pm$ 75 KHz deviation, 50  $\mu$ s dephasis, 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:**  $\pm$ 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  $\pm$ 75 KHz deviation, 50  $\mu$ s dephasis, weighted.  
**Stereo Separation:** 30 $\pm$ 80 Hz  $\geq$  -53 dB, 80Hz $\pm$ 15 KHz  $\geq$  -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:**  $\geq$  -70 dB (typ. -85 dB).  
**Pilot Frequency:** 19 KHz  $\pm$  1 Hz  
**Phase Pilot:**  $\pm$  2° adjustable  
**Output Pilot:** 1 Vpp., BNC female  
**Audio Filter Attenuation:**  $\geq$  -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:**  $\pm$ 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.  
**N°2 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 +10% - 15%, 50/60 HZ single phase  
**AC Power Consumption:** 1,750VA @ 1,300W Cos  $\Phi$  > 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:** 15 unit cabinet  
**Size:** 570mm. (W) x 800mm. (D) x 800mm. (H)  
**Weight:** ~ 60 Kg.

Features and specifications subject to change without notice