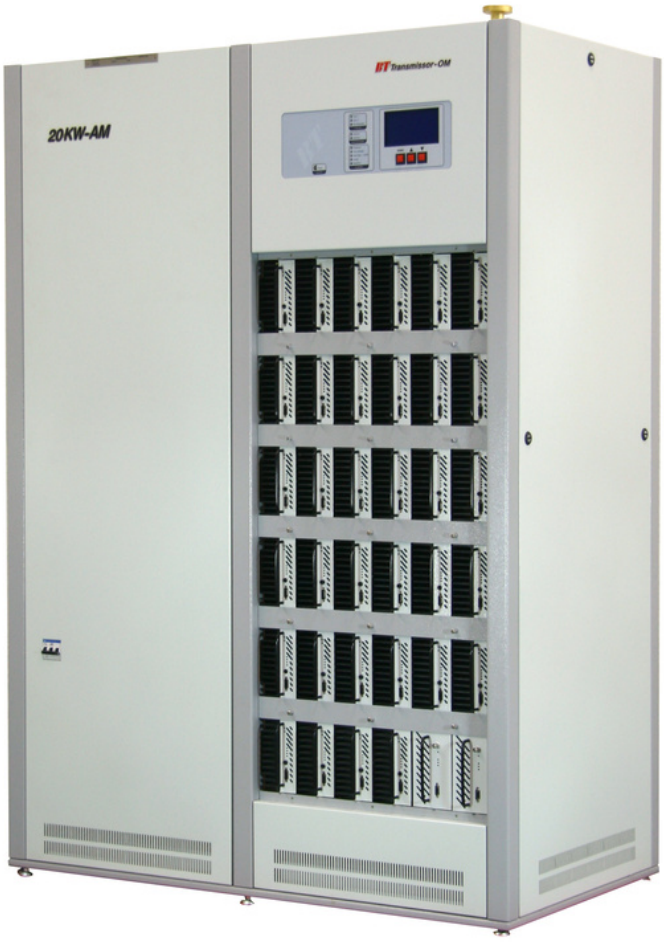
YOUR RADIO CONNECTED
AROUND THE WORLD

BT20000D
MW 20KW TRANSMITTER



BT Broadcast Transmitters

24 years developing and producing radio transmitters integrating technology and innovation.

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GET TO KNOW OUR TRANSMITTERS EQUIPMENTS

Fully programmable and flexible, our AM transmitters have a CPU that allows the user to program the air input and output, the power reduction schedule, and the desired output power. In addition, programming can be done locally on the multifunction display on the transmitter's panel, or remotely.

Generating power savings of up to 60% over valved transmitters and operating at a typical high efficiency of over 80%, all models of AM transmitters have protections on the primary power grid, incorporating a phase loss detector, mains high and transient suppressors.

In addition to the RF output protection, it also has a power gradient input device for the return to the air and in variable conditions as to lightning discharges, thus optimizing the best output power and stabilizing the transmission in an intelligent control in the transmitter's CPU.

- Excellent finish throughout the equipment;
- In the RF output it has deflagrators and an ultra-fast disarming system against lightning strikes.;
- Structure in stainless steel and aluminum perfectly fitted and screwed;

CONNECTIVITY
Telemtry and Remote Control

The BT Transmitter may have all its parameters configured and monitored remotely withou the nedd of an operator close to the device.

Simply connect an RS232 or RS485 interface to your notebook or desktop, set the value and reduced power, display alarm history and all other configurable parameters. the transmitter can be on your side wherever you are.

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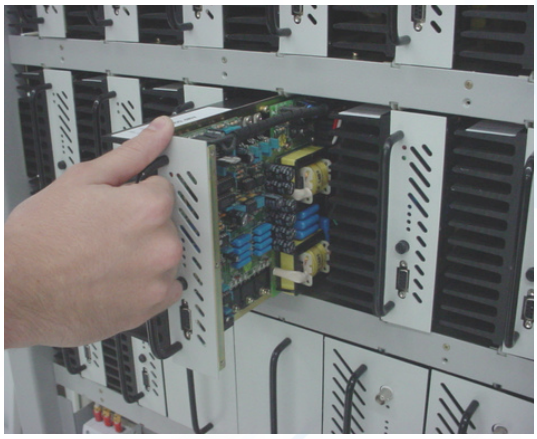
CHARACTERISTICS



SIGMA - DELTA MODULATION
One of the biggest and main differences is in the architecture, since there is a modulatior within each power module. Each modulator operates in a negative feeback loop that significantly improves audio parameters of the equipment.

This results in lower distortion, better frequency response beyond the lowest power dissipation when operating in situations of high density audio.

This modulation process also allows the transmitter to operate at very low power levels without significant loss os quality.

UPGRADEABLE
This transmitter series runs analog AM modulation and is ready for DRM or any other digital application.

EASY MAINTENANCE
All details on the construction of transmitter fromthe position of the transistors in the plates to the placement of modules are designed to facilitate any necessary technical assistance.

ABSENCE OF ELECTROMECHANICAL CONTACTORS
All primary BT Transmitter switching is made electronically.

This process ensures the total absence of transients during turn on and off the equipment without contact wear and mechanical vibrations.

OPERATION DIFFERENCES

LOW POWER CONSUMTION
Our transmitters equipments are fully solid state, causing a significant reduction in power comsumption and has as average efficiency better than 85%.

ADJUSTABLE POWER
Programmable power value within it range, without significant loss of audio quality or efficiency, thus avoiding the need os another transmitter to operate at night power.

This difference is often greater than the actual amount of funding to purchase a new transmitter. All this in addition to the high cost of maintenance of tube transmitters

SCHEDULED POWER REDUCTION
The power reduction at nighttime can occur in a fully automated fashion, from the timetable for reducing configurable power, both the transmitter acreen or ramotely from the included remote control software

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TECHNICAL SPECIFICATIONS

AC LINE PARAMETERS

AC input voltage:	3 phase - 220V/380V ± 10% (50 or 60Hz)
Power supply range:	± 10% voltage, 47Hz to 63Hz
AC power consumption:	23,5 kW
Overall efficiency:	85%
Power factor:	0,97 RF output power 20kW (3 phases)

RF PAREMETERS

RF output power:	200W to 22000W
Output power stability:	Less than 1%, under ± 10% AC input variation
RF carrier frequency range:	530kHz to 1730kHz
Channel spacing (per order):	9kHz or 10kHz
Carrier frquency stability:	± 3ppm environment temperature 0˚C-45˚C (32˚F-113˚F)
Carrier shift:	Less than 1% at 95% negative modulation and 1kHz
RF output impedance::	50 ohms (unbalanced)
Harmonic and spurious suppression:	better than - 65dB
Modulation range:	Up to 140% @20kW output carrier
Modulation meter:	negative 0 to 100% and positive 0 to 140% There is a modulation monitor display at the front panel. Its shows the positive and the negative modulation simultaneously, with a visual alarm when the negative modulation is over 100%.
VSWR on load:	1.4:1 at full power

AUDIO PAREMETERS

Input level:	0dB to ± 10dBm (adjustable)
Input impedance:	600 ohms (balanced)
Frequency response:	± 0,5dB (90% modulation, BW 30Hz to 10kHz)
Harmonic distortion:	≤1% (85% modulation, BW 30Hz to 10kHz)
Noise:	-68dB (Ref. to 1kW, 90% modulation, BW 30Hz to 10kHz)
Group daley:	8µs (@1kHz), 8,4µs (@21kHz)

ACCESS CONNECTORS

Output antenna connector RF:	EIA 7/8 flange
Audio input connector:	Multipole wire-to-wire connector
Communication interface connectors:	RS232 or RS485, others upon request
Monitor Frequency connector:	BNC female
Modulation monitor connector:	BNC female
Sync input/output connector:	BNC female
AC energy connector:	Direct wire

PHYSICAL DIMENSIONS

Height:	1840 mm
Width:	1280 mm
Depth:	725 mm
Weight (kg):	660 kg

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TRADITIONAL LINE

A GREAT SUCCESS IN BRAZIL AND AROUND THE WORLD

Attitudes that make all the difference

ALL-IN-ONE DISPLAY

Alarms, measurements, and all of your transmitter's programming at your fingertips. Ease and accessibility.

SWAM4 TELEMETRY

RS232 interface. Both locally and remotely, you can configure and monitor your transmitter via GPRS modem or the Internet.

PROGRAMMING AND ADJUSTMENT

It allows the programming of any transmitter output power levels, from 200W to 10% of full power.

AUDIO PEAK LIMITER

Simultaneously showing the positive and negative modulation rate with alarms for negative peaks that exceed 100%. Audio response from 30Hz to 20kHz + 0.8dB for all power levels

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