



BTESA
BROAD TELECOM

STAND-ALONE TRANSMITTERS



LOW POWER

1mW to 20Wrms in COFDM
1.5mW to 20Wrms in ATSC
3mW to 30Wps in Analogue

MEDIUM POWER

75W to 850Wrms in COFDM
100W to 1.000Wrms in ATSC
100W to 1.250Wps in Analogue

The new BTESA's **TTD-Stand Alone** Transmitters series offers the highest density and flexibility in all its configurations.

In only 1RU, the **Low Power** version provides up to 20Wrms output power for COFDM based standards and ATSC, and up to 30Wps in Analogue TV.

The **Medium Power** version provides a further step in efficiency terms thanks to its in-built solutions for RF power combination and automatic switching between exciters, which allow to provide in only 7RU up to 1.250Wps output power in Analog TV and up to 1.000Wrms in Digital TV also available in **Doherty** technology. Through an in-built LCD touch screen, the **Control Logic** permits to enjoy a complete clarity while configuring, operating and remotely controlling the transmitter.

Both versions benefit from the powerful digital processing of its **modulator** offering all TV standards (Analogue TV, DVB-T/H, DVB-T2, ATSC and ISDB-T) and DAB radio, also with **Dual Cast** mode. Its **extreme low noise** Local Oscillators and its efficient and agile **Up Converter** allow unlimited and instantaneous channel modifications. Among its optional advantages: **adaptive pre-correction**, **regenerative transmitter** version and **TSolP** input.

An **external GPS reference** input and the possibility to host a **GPS receiving card** in its interior are available to serve in SFN networks.

SERIE TTD - STAND ALONE

SPECIFICATIONS

General

| | | |
|------------------|--|---|
| Output powers | 1mW – 1.000Wrms 1mW – 1.250Wps (ATV) | Depending on its configuration |
| Standards | Analogue -- PAL B/G/K/I, NTSC M/N, SECAM Digital -- DVB-T/H-T2/T2Lite, ATSC, ISDB-T Radio -- DAB | Dual cast available NICAM and IRT sound available |
| Frequency | VHF (174-862 MHz) UHF (470-862 MHz) | Channel bandwidth: 1.7 MHz, 5MHz, 6MHz, 7MHz or 8MHz |
| Input Connector | - Analog: Video CVBS (BNC). Audio balanced 2 x Jack 1/4" - Digital: 2xASI (seamless switching) (BNC) | Option hierarchical modulation: 2xASI, option 4xASI (2 backup) Option TSolP: RJ45 input |
| Output Connector | SMA, N, 7/16 | Adaptors available |

Quality parameters

| | | |
|--|--|---|
| MER (at nominal output power) | > 41 dB maximizing MER > 32 dB maximizing efficiency | Measured in the worst channel UHF Adaptive precorrector available |
| Shoulders (at nominal output power) | < -47 dB maximizing MER < -37 dB maximizing efficiency | Measured in accordance with ETSI 101 290 before output filter |
| Intermodulation (analog) | <-60dB | (-5dB, -16dB, -10dB) |
| Non-essential radiations | < -100 dBc | With respect to r.m.s. power |
| Short term stability | ± -11 when locked to GPS (SFN) ± -8 when locked to optional OCXO (MFN) ± -7 when locked to VTCXO (MFN) | |
| LO Phase noise | < -90 dBc/Hz @ 1kHz | For UHF (for VHF is even better) |
| Frequency resolution | 1 Hz Steps | Based on DDS |

Control

| | | |
|-------------------|---|----------------|
| Monitoring points | RF level, IF level , LO level | SMA connectors |
| Local control | LCD and keyboard, RS-232, RS-485 GUI touch screen (optional) for ≥ | |
| Remote control | 1. User console to access all parameters 2. BTESA network management system for minimum data rate (Optional) 3. SNMP agent (Optional) 4. Web Server (Optional) | |

Mechanical and Electrical

| | | |
|-------------------|---|---|
| Power supply | ≤ → 110V / 220V ± (for ≤ ≥ → Multi-entry (single phase 220V ± 20% and Three-phase 220/380Vac ± | Opt: Both AC and DC inputs can be simultaneously connected |
| Power Factor | > 0.95 | Dynamic PF correction |
| Temperature range | 0° to +45° C | |
| Humidity | Up to 95% | without condensation |
| Altitude | Up to 2.500 m above sea level | Higher upon request |

Specifications subject to change without notice



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