



DIGITAL BROADCAST

FM

DTS / DRS Series



# DTS / DRS Series Specifications



*The DTS and DRS Series are the state of the art perfect solution for Studio to Transmitter audio links, matching the networking needs of international broadcasters. These products are designed to be frequency agile and to reach the higher audio modulation performances with a very intuitive and complete front panel LCD display control system. The excellent characteristics make the DTS/DRS series one of the highest quality STL on the market.*

### **Synthesized Agility**

From 210 to 970 MHz (/3B, /4B, /GHz models) and from 1.35 to 2.5 GHz (/2G models); the transmitted and received frequencies can be easily set by the front panel LCD display.

### **Compact, simple, stable.**

The compact dimensions of the units, the smart internal design for easy maintenance, the very high frequency precision and stability thanks to the temperature compensated crystal are only a few key points for this STL Series.

### **Excellent stereo separation**

A built-in group delay and amplitude pre-corrector guarantees a very low linear distortion and a great stereo separation in the whole 15kHz band.

### **Low noise**

The excellent signal to noise ratio either in mono or in stereo assures the perfect use of this STL in multi-hops networks without decreasing the audio quality.

### **High sensitivity**

Using ultra low noise receiving input amplifiers, selective filters and with a powerful demodulation circuit the obtained receivers sensitivity is very high, so allowing longer link distances with reduced antenna investment also in highly noisy RF environments.

### **Great RF immunity**

Great RF immunity allows to operate in most hostile RF environments.

### **High adjacent channel rejection**

High adjacent channel rejection, obtained thanks to the excellent mechanical shielding and the RF selective filtering.

### **Full metering**

Complete diagnostic and measurement of all the main parameters is available using front panel LCD display. Full remote control is available as WEB server and/or SNMP as option.

### **Meets or exceeds all international standards**

For safety and electrical specifications.

**TECHNICAL SPECIFICATIONS**

**GENERAL SPECIFICATIONS**

Frequency Range:	
DRS/FM	87.5-108 MHz
DTS/3B, DRS/3B	210-270 MHz
DTS/4B, DRS/4B	310-470 MHz
DTS/G, DRS/G	900-970 MHz
DTS/2G, DRS/2G	1350-1800 MHz 2370-2480 MHz

**TRANSMITTERS SPECIFICATIONS**

Power outputs (continuously adjustable from 0 to nominal power):	
• DTS/3B	max 13 W
• DTS/4B	max 13 W
• DTS/G	max 13 W
• DTS/2G	max 5 W (25 W on request)
Output impedance	50 Ω
Output connector	N female
Modulation	FM, 75 kHz peak deviation, 180k F3E mono, 256k F8E stereo
Audio/MPX Input level	-3.5 ÷ +12.5 dBm
Audio Input connector	XLR female
Auxiliary Channel input level	-12.5 ÷ +3.5 dBm .
MPX, Auxiliary and monitor connectors	BNC
Transmitter MPX monitor output level	0 ÷ +7dB, adjustable
Pre-emphasis	0 / 50 / 75 μs
Spurious and harmonic suppression	Exceeds CCIR/FCC requirements
Synchronous AM S/N Ratio	<-60 dBc with ΔF ±75 kHz
Asynchronous AM S/N Ratio	<-70 dBc
Capability	1 mono/stereo program, up to 3 SCA (optional)
Metering	output forward and reflected power, peak modulation, diagnostic functions
Dimensions	depth 483 mm (19") x 2 U (standard rack unit)



## RECEIVERS SPECIFICATIONS

MPX/mono Output level	-1.5 ÷ +12 dBm, 0.5 dB/step
Monoaural Sensitivity	< -90 dBm
Composite Sensitivity	< -68 dBm
Dynamic Selectivity	> +10 dB typ @ ΔF=300kHz > +35 dB typ @ ΔF=500kHz > +45 dB typ @ ΔF=1.0 MHz
Metering	RF input level, peak modulation
RF input	N female, 50 Ω
Image rejection	> 68 dB
Squelch threshold	adjustable from -100 dBm
Outputs	composite, monoaural, IF 10.7 MHz
Dimensions	depth 483 mm (19") x 2 U (standard rack unit)

## OVERALL CHARACTERISTICS

Mono Amplitude response	±0.5 dB from 20 Hz to 15 kHz
MPX Amplitude response	±0.1 dB from 15 Hz to 53 kHz, ± 0.5 dB from 53 kHz to 100 kHz
Stereo separation	> 55 dB from 30 Hz to 15 kHz
Mono S/N (with deemphasis) with -50 dBm receiving signal	> 74 dB (with 75 kHz Mono deviation)
Stereo S/N (with deemphasis) with -50 dBm receiving signal	> 70 dB (with 75 kHz MPX deviation)

## AC POWER REQUIREMENTS

AC input voltage	115 / 230 VAC ± 15%, single phase.
AC supply frequency	50 Hz or 60 Hz, ±5%

## ENVIRONMENT

Cooling	Forced air
Service	Continuous 24/24h
Operating temperature	-5°C to +45°C Derate 3°C per 500mt above 2000mt asl
Relative humidity	Up to 95%

## AVAILABLE OPTIONS

/ST	High performance built-in Digital Stereo Coder for DTS transmitter
/SD	High performance built-in Digital Stereo Decoder for DRS receiver
/AES-EBU	Digital audio input/output (AES/EBU) for DTS-DRS Series
/TCP-IP	Remote control Ethernet interface
/RS485	Remote control RS485 interface

All specifications are subject to change without notice

## Contact Information

**DB Elettronica Telecomunicazioni S.p.A.**

Riviera Maestri del Lavoro 20/1

35127 Padova - Italy

Ph +39 049 8700588

Fax +39 049 8700747

[info@dbbroadcast.com](mailto:info@dbbroadcast.com)

[www.dbbroadcast.com](http://www.dbbroadcast.com)