



UHF Analog STL System



MODEL 8300GB/8301GB ANALOG STL TRANSMITTER and RECEIVER

The TFT 8300GB Analog STL is a new UHF addition to the TFT family of STL products which incorporates the latest technology in an economical package. The rugged construction and high performance make the 8300GB/8301GB ideal for complex or simple analog and hybrid STL applications in the 1.4-1.9 GHz band. Internal DIP switches set the operating frequency in each unit.

GENERAL DESCRIPTION

The TFT 8300GB/8301GB system is the result of 40 years of continued research and development in analog and digital STL technology. The 8300GB transmitter has a nominal output of 7 Watts. The triple conversion 8301GB receiver has improved sensitivity for optimum fade margin and reliability. It is ideal for dense RF environments to meet stringent requirements in heavy RF congestion.

SUPERIOR PERFORMANCE

Direct FM modulation and superior reliability make the 8300GB and 8301GB suited to a variety of situations, including composite, hot stand-by, redundant and multi-channel with addition of DMM92 systems. Both transmitter and receiver are compatible with existing composite and digitally multiplexed TFT systems. A front panel assembly permits easy control, setup and monitoring. All operating parameters can be seen and controlled from the front panel. Main board jumpers select modes of operation. The 8301GB receiver features selectable gain and bandwidth for optimum performance.

FEATURES & BENEFITS

- All Frequencies
1.4-1.9 GHz
(in 20 MHz sub-bands)
- Frequency agile
- 7 Watts (nominal)
(adjustable)
- Direct FM Modulation
- Selectable receiver
gain and bandwidth
- IF Repeater/Interface
Options
- Receiver Automatic
Switchover Built-in
- Compatible with
DMM92 Digital Hybrid
Systems

SPECIFICATIONS

SYSTEM

Frequency1.4-1.9GHz, single channel, agile
Frequency Stability..... ± 5 ppm (± 0.0005)%
Occupied Bandwidth..... $\leq 206, 300$ or 400 kHz
(depending upon operation
and number of SCA/subcarrier/MUX channels)
Frequency Response
40 Hz to 53 kHz ± 0.1 dB
53 kHz to 92 kHz.....0dB, -2.5 dB
Distortion..... $< 0.06\%$ at 1 kHz
Noise..... > 82 dB below
 ± 50 kHz deviation, 75 μ sec de-emphasis
Dynamic Range.....80 dB static
Crosstalk..... < 50 dB
SCA/MUX.....2 inputs
for 57 kHz RDS/MBS, 67 kHz, 92 kHz

TRANSMITTER

Output Power.....7 Watts
Output Impedance.....50 Ω
Output Connector.....Type N (female)
Input Impedances
Composite.....10k Ω , unbalanced
MUX.....2k Ω , unbalanced
Input Levels
Composite.....+ 6 dBm
SCA/MUX (2).....1.2Vp-p
Optional IF Output.....70 MHz
Monitoring Capability
One 2" analog meter for power output, power supply,
bias voltages, program and multiplex modulation
and one LED bargraph for monitoring
70 to 120% program modulation peaks
Dimensions.....19 x 5.25 x 14 (inches)
483 x 133 x 356 (mm)
Weight.....20 lbs. (9 kg)

TRANSMITTER (CONTINUED)

AC Power Requirements

120/240 VAC 50/60 Hz
100 Watts

Operating Temperature.....0° to +50° C.

RECEIVER

RF input connector.....Type N, female
Threshold Sensitivity
-75 dBm (40 μ V) for 60 dB SNR
composite, 75 μ sec. de-emphasized
Audio Outputs
Composite.....+ 3.5 Vp-p, unbalanced 2k Ω load
MUX.....+ 3.5 Vp-p, unbalanced, 600 Ω load

COMP and MUX input for hot stand-by receiver
automatic switchover, unbalanced BNC

Monitoring Capability

One 2" analog meter for RSSI, bias voltages,
program and multiples modulation
And one LED bargraph for RSSI and
program modulation peaks

Dimensions.....19 x 3.5 x 14 (inches)
483 x 89 x 356 (mm)

Weight.....20 lbs. (9 kg)

AC Power Requirements

120/240 VAC 50/60 Hz, 20 Watts

Operating Temperature.....0° to +50° C.



Sound Quality Since 1970

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