



# UNcompromising Analog STL



## MODEL 5200 ANALOG STL TRANSMITTER and RECEIVER

The TFT 5200 Series Analog STL is a new addition to the TFT family of STL products which incorporates the latest technology in an economical package. The rugged construction, frequency agility, and high performance make the 5200 Series ideal for complex or simple analog STL applications.

### GENERAL DESCRIPTION

The TFT 5200 Series consists of a transmitter and receiver pair that delivers a composite or mono signal with maximum flexibility and minimum of adjustment or configuration. The transmitters have a nominal output of 10 Watts; 20 Watt or higher versions are also available. The receivers have improved sensitivity for optimum fade margin and reliability and built-in automatic switchover. The entire RF system is frequency agile and set by software in the transmitter and receiver. Up/down pushbuttons select the desired frequency without need for further adjustment or internal optimization.

### SUPERIOR PERFORMANCE

Direct FM modulation and true frequency agility make the 5200 suited to a variety of situations, including composite, mono, dual mono, hot stand-by, redundant and multi-channel. One transmitter/receiver pair can cover a full 20 MHz band segment and is ideal for back-up applications. Both transmitter and receiver are compatible with existing composite and mono systems. A front panel LCD and user-friendly navigation system permit easy control and setup. All operating parameters can be seen and controlled from the front panel. No tuning is required. Main board jumpers select modes of operation.

### FEATURES & BENEFITS

- Frequency Agile From the Front Panel
- All Frequency Bands 1.9 GHz—140 MHz (in 20 MHz sub-bands)
- 10 or 20 Watts (nominal)
- Liquid Crystal Display
- Composite or Mono
- 6.25 kHz Step Size (25 kHz 1.9-1.4 GHz)
- Selectable Pre-/De-Emphasis
- Direct FM Modulation
- Receiver Automatic Switchover Built-in
- FCC ID: BIO5290

## SPECIFICATIONS

### Frequency/Model Numbers

Frequency Band (20 MHz sub-bands)	Power (Nominal) (Watts)	Tx (Comp/Mono)	Rx (Comp/Mono)
1.72-1.9 GHz	5/10	5200G/HP	5201G
944-952 MHz	10/20	5290/HP	5291
900-945 MHz	10/20	5290/HP	5291
845-852 MHz	10/20	5280/HP	5281
450-460 MHz	10/20	5240/HP	5241
310-330 MHz	10/20	5230/HP	5231
220-240 MHz	10/20	5220/HP	5221
140-160 MHz	10/20	5210/HP	5211

### SYSTEM

Step Size.....6.25 kHz  
(25 kHz 1.7-1.9 GHz)

Frequency Stability.....± 5 ppm (±0.0005)%

Occupied Bandwidth.....≤ 140 or 470 kHz  
(depending upon operation)

Frequency Response

50 Hz to 53 kHz .....± 0.1 dB

50 Hz to 75 kHz.....± 0.5 dB

50 Hz to 200 kHz.....± 0.75 dB

Distortion.....< 0.06% at 1 kHz

Noise.....> 75 dB  
(>70 dB 1.7-1.9 GHz)

Dynamic Range.....80 dB static

Crosstalk.....< 50 dB

### TRANSMITTER

Output Power.....(See Table)

Output Impedance.....50 Ω

Output Connector.....Type N (female)

Input Impedances

Mono.....600/10k Ω balanced or unbalanced

Composite.....10k Ω, unbalanced

MUX.....2k Ω, unbalanced

Input Levels

Mono.....+2.7 dBm (balanced), 3Vp-p (unbalanced)

Composite.....3Vp-p

MUX.....1.2Vp-p

### RECEIVER

#### Threshold Sensitivity

-73 dBm (50 μV) for 60 dB SNR  
(composite, 75 μsec. de-emphasized)

-71 dBm (60 μV) for 60 dB SNR  
(mono, 75 μsec. de-emphasized)

#### Audio Outputs

Composite.....+ 3.5 Vp-p, unbalanced 2k Ω load

Mono.....0 dBm balanced 600 Ω load

MUX.....+ 3.5 Vp-p, unbalanced, 600 Ω load

COMP and MUX input for receiver automatic switchover,  
unbalanced BNC

### MECHANICAL AND ENVIRONMENTAL

Dimensions.....19 x 3.5 x 17 (inches)  
483 x 89 x 432 (mm)

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

#### AC Power Requirements

120/240 VAC 50/60 Hz  
Transmitter 100 Watts  
Receiver 20 Watts

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



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