



Monaural Analog STL



5100-M ANALOG STL TRANSMITTER and RECEIVER

The TFT 5100-M 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 5100-M Series ideal for simple, monaural analog STL applications.

GENERAL DESCRIPTION

The TFT 5100-M Series consists of a transmitter and receiver pair that delivers a monaural 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 optimization.

SUPERIOR PERFORMANCE

Direct FM modulation and true frequency agility make the 5100-M suited to a variety of applications that require monaural or dual monaural, hot stand-by, redundant and multi-channel configurations. One transmitter/receiver pair can cover a full 20 MHz band segment and is ideal for back-up applications. 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 pre-/de-emphasis.

FEATURES & BENEFITS

- Frequency Agile From the Front Panel
- All Frequency Bands 1.9 GHz—240 MHz (in nominal 20 MHz sub-bands)
- 10 or 20 Watts (nominal) (5 or 10 Watts 1.72-1.9 GHz)
- Liquid Crystal Display
- 6.25 kHz Step Size
- Selectable Pre-/De-Emphasis
- Direct FM Modulation
- Receiver Automatic Switchover Built-in
- RoHS Compliant

SPECIFICATIONS

Frequency/Model Numbers

Frequency Band (20 MHz sub-bands)	Power (Nominal) (Watts)	Tx	Rx
1.72-1.9 GHz	5/10	5100G/HP	5101G
944-952 MHz*	10/20	5190/HP	5195
900-945 MHz	10/20	5190/HP	5195
845-852 MHz	10/20	5180/HP	5185
450-460 MHz	10/20	5140/HP	5145
310-330 MHz	10/20	5130/HP	5135
220-240 MHz	10/20	5120/HP	5125
140-160 MHz	10/20	5110	5115

SYSTEM

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

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

Occupied Bandwidth.....≤ 100 kHz

Frequency Response: 50 Hz to 15 kHz± 0.1 dB

Distortion.....< 0.05% at 1 kHz

Noise.....> 70 dB

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

 MUX.....2k Ω, unbalanced

Input Levels

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

 MUX.....1.2Vp-p

*FCC TYPE CERTIFICATION BIO5290

RECEIVER

Threshold Sensitivity

-83 dBm (15 μV) for 50 dB SNR
(75 μsec. de-emphasized)

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

Audio Outputs

Mono.....0 dBm balanced 600 Ω load

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

Mono 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.



Sound Quality Since 1970

1953 Concourse Drive, San Jose, California 95131-1708 U.S.A.
Telephone: +1-408-943-9323 Fax: +1-408-432-9218
<http://www.TFTInc.com>

9500-0620D 091230.001M
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