

STL 20M : Technical Specifications

The STL 20M is our latest mono STL transmitter. This transmitter replaces the STL 10. There are a number of changes that were made to make this the price-value leader in mono STL products. The STL 20M is synthesized, has a new RF amplifier, as well as a cooling fan. More power, reliable, cooler, and easier to tune - that's the new STL 20M. Two of these units can be used to build a discrete stereo STL system.



AVAILABLE OPERATING FREQUENCIES

- 150 MHz Band:**
Range from 135 to 185 MHz
- 230 MHz Band:**
Range from 215 to 250 MHz
- 250 MHz Band:**
Range from 235 to 265 MHz
- 330 MHz Band:**
Range from 300 to 350 MHz
- 450 MHz Band:**
Range from 430 to 480 MHz
- 950 MHz Band:**
Range from 935 to 965 MHz

RF SPECIFICATIONS

- Frequency Band:**
135-965 MHz
- Typical Max RF Output Power:**
 - Power @ 135-140 MHz:**
20 W
 - Power @ 140-180 MHz:**
30 W
 - Power @ 180-185 MHz:**
20 W
 - Power @ 215-250 MHz:**
30 W
 - Power @ 235-245 MHz:**
25 W
 - Power @ 245-265 MHz:**
30 W
 - Power @ 300-315 MHz:**
20 W
 - Power @ 315-350 MHz:**
30 W
 - Power @ 430-480 MHz:**
30 W

Power @ 470-520 MHz:

30 W

Power @ 840-870 MHz:

20 W

Power @ 900-935 MHz:

20 W

Power @ 935-960 MHz:

20 W

Power @ 960-965 MHz:

18 W

Selection:

Factory set single Frequency, fully synthesized

Deviation:

± 50 kHz standard; adjustable up to ±200 kHz max

Stability over Operating Temperature range:

± 0.0001%

Agility and Accuracy (Models under 935 MHz):

For frequencies divisible by 5 or 6.25 kHz:

± 0.00004%

For MOST frequencies NOT divisible by 5 or 6.25 kHz:

± 0.00015%

Agility and Accuracy (Models over 935 MHz):

For frequencies divisible by 10 or 12.5 kHz:

± 0.00004%

For MOST frequencies NOT divisible by 10 or 12.5 kHz:

± 0.00015%

AUDIO SPECIFICATIONS

Modulation:

Direct FM (synthesized)

Type of technology to produce carrier:

Phase-locked loop (synthesized)

Spurious Emission:

More than 60 dB below carrier

RF Output Impedance:

50 Ohm

VSWR:

1.5:1 at all phase angles into 50 Ohm load

Mono Operation:

Connector Type:

15-pin D connector or external terminal strip

Impedance:

Balanced 600 Ohms

Level:

+8 dBm

Audio Bandwidth:

50 Hz to 15 KHz

Pre-emphasis:

0, 25, 50, and 75 µsec, user selectable

Signal To Noise:

≥74 dB, 75 µsec pre-emphasis, ±50 kHz deviation

Frequency Response (50 Hz to 15 kHz):

±.05 dB

Distortion:

≤0.2% from 50 Hz to 190 kHz

Subcarrier Inputs (Select up to two):

39 KHz, 67 KHz, 92 KHz, 110 KHz, 152 KHz, 185 KHz

Subcarrier Operation:

3 Vpp for 10% injection, 5K Ohms unbalanced, BNC connectors

MECHANICAL/PHYSICAL

Accessory Connector:

15 pin D connector or external terminal bus board for external DC power, remote control, balanced mono line level input

RF Connector:

Type N female

Cooling Requirements:

Install in well ventilated rack

Airflow:

Internal flushing fan

Dimensions (Unpacked):

3.5"H x 19"W x 15.5"D (8.9cm H x 48.3cm W x 39.4cm D)

Weight (Unpacked):

9 lbs (4.1 kg)

ENVIRONMENTAL

Operating Temperature:

-20° C to +50° C

Altitude:

10,000 ft (3048m) max

Humidity:

95% maximum, non-condensing

ELECTRICAL

Voltage:

AC Operation:

110-120 VAC 60 Hz or 220-240 VAC 50/60 Hz (manually switched internal linear supply)

DC Operation:

12-15 or 15-30 VDC via D connector

Current Draw:

6.5 to 8.5 amps at maximum power output

Power Consumption:

300 W max (150 W typical)

Heat Dissipation:

300 W max

Fuse:

2.5 amp slo-blo for 115 VAC operation, 1.25 slo-blo for 230 VAC operation