TTS 250M

Transmitters with a Heritage

100-250 watt Internally Diplexed Television Transmitter

In today's world of 100% on-air time, no broadcaster can afford to be without a revenue generating signal.

The TTS 250M is the new standard in broadcast transmitters. Designed upon the principles of:

- Simplicity

- Reliability

- Modularity

- Serviceability

LARCAN

An ISO 9001 Certified Facility

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ELECTRICAL AND MECHANICAL SPECIFICATIONS

TTS250M: 100 - 250 watt INTERNALLY DIPLEXED TELEVISION TRANSMITTER

VISION- DOC/FCC (NTSC):

Power Output: ..... 250 W peak
Frequency Range:
TTS250ML ..... 54-88 MHz (Channels 2 thru 6)
TTS250MH.....174-216 MHz (Channels 7 thru 13)
Output Impedance: .....50 Ω
Output Connector: .....type N
Input Impedance: ..... 75 Ω (unbalanced)
Input Level: .....0.5 to 2.0 V p-p
Output Regulation: .....3% (black-white picture)
Output Variation: ..... 2% (over 1 frame)
Field Time Distortion 2%
Line Time Distortion 2%
Carrier Frequency Stability: ..... ±200 Hz[i]
Visual Sideband Response:
-3.58 MHz: .....-42 dB[ii]
-1.25 MHz and lower: .....-20 dB[ii]
Carrier to -0.5 MHz: .....±0.5 dB[ii]
Carrier +200 kHz: ..... 0 dB Ref[ii]
Carrier to +4.0 MHz: ..... ±0.5 dB[ii]
4.0 to 4.18MHz (+0.5-1.0dBii), 4.75 to 7.75MHz: .....-40 dB [ii]
Frequency Response:
Variation W/Brightness: ..... ±0.3 dB[iii]
Signal/Noise: .....-55 dB (RMS below sync level)
K2t: .....1% baseline disturbance
K12.5t: ..... 3% baseline disturbance

Harmonic Radiation: .....-80 dB
Linearity: .....0.5 dB (low frequency)
Incidental Carrier ϕ Mod: .....±1°
Differential ϕ: ..... ±1°[iv]
Differential Gain: .....±3%[v]
Differential Gain vs. APL: .....±3% (10% to 90% APL)
Envelope Delay vs. Frequency:
0.2 to 2.0 MHz: .....±40 nsec
@3.58 MHz: .....±30 nsec
@4.18MHz: ..... ±60 nsec

SOUND:

Power Output: .....25 W
Output Impedance: .....50 Ω
Frequency Stability: .....±200 Hz

MONO INPUT:

Input Impedance: .....600 Ω (balanced)
Input Level: ..... +6 to +12 dBm (for +25 kHz deviation)
Common Mode Rejection: .....50 dB (30 Hz to 15 kHz)
Pre-Emphasis: .....75 μsec
Frequency Response: ..... ±0.5 dB, 30 Hz to 15 kHz
.....(ref 400 Hz, 75 μsec pre-emphasis)
Distortion: ..... 0.5%, 50 Hz to 15 kHz (±25 kHz deviation)
FM Noise: ..... -60 dB (ref. ±25 kHz deviation)
Modulation Capability: .....±125 kHz deviation
Asynchronous AM Noise: ..... -60 dB
Synchronous AM Noise: ..... -50 dB

Composite Input:□
Input Impedance:..... .....75 (unbalanced)□
Input Level:.....0.5 V to 2V p-p (for ± 75 kHz deviation)□
Frequency Response:..... ± 0.1 dB (50 Hz to 70 kHz)□
..... ± 0.5 dB (70 Hz to 100KHz)□
Phase Response: ..... ± 0.5 from linear□
Stereo Separation...45 dB (50Hz to 15Hz, equivalent mode)6 □
THD: ..... 0.1% (@400Hz & ± 75 Hz□
Modulation Capability..... ± 200KHz deviation

ELECTRICAL

AC Line Input: ..... 200 to 242 V; 1 ϕ
Power Consumption:
Black Picture and sound on: .....1.1 kW
Power Factor cos ϕ ..... 0.90 (approx)

ENVIRONMENTAL

Ambient Temperature: ..... 0° to +45°C
Humidity: ..... 0% to 90%
Altitude: .....7500 ft.

DIMENSIONS

60 in. H x 21 in. W x 25 in. D

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i. Maximum variation over 30 days at ambient temperatures 0°C to 35°C.

ii. Measured at transmitter output.

iii. With respect to response at mid characteristic.

iv. Max. SC ϕ variation reference burst from 12.5% to 75% modulation, SC modulation 12.5%.

v. Max. SC amplitude variation from 12.5% to 75% modulation, SC modulation 12.5%.