

## UHF RADIO LINK 8300G (Supplemental Data Sheet)

The 8300G System was created by TFT to satisfy the needs of international broadcasters for program quality radio links in the 1.9 to 1.7 GHz band. The 8300G performance characteristics are very similar to those of the 8300 series. Some of the pertinent differences are listed here.

### 8300G TRANSMITTER SPECIFICATIONS

<b>Operating Frequency</b>	1.4 GHz - 1.9 GHz band, single-channel, fixed frequency.
<b>Baseband Frequency Response</b>	40 Hz - 53 kHz, + 0.1 dB, - 0.5 dB
Composite	53 kHz - 92 kHz + 0 dB, -2.5 dB
Monaural	40 Hz - 15 kHz $\pm$ 0.5 dB
<b>Signal-to-Noise Ratio</b>	75 dB below 100% modulation, 75 $\mu$ sec de-emphasized, $\pm$ 75 kHz deviation
<b>RF Output</b>	5-7 watts MAX typical; adjustable to 1 W with internal trimmer (Consult factory for other wattage)
<b>Frequency Stability</b>	$\pm$ 1 ppm/year
<b>Frequency Accuracy</b>	
0°C to +50°C	0°C to +50°C
-10°C to +50°C	$\pm$ 0.0005%
<b>Spurious Signal Suppression</b>	65 dB below carrier level (Non-harmonically related)
	65 dB below carrier level (Harmonically related)
<b>AM Noise</b>	65 dB below carrier level
<b>Signal Input</b>	
Monaural	+6 dBm, 600 $\Omega$ balanced, 50 $\mu$ sec pre-emphasis internal. Input impedance 2k $\Omega$
Stereo Composite	+6 dBm into 600 $\Omega$ , 10k $\Omega$ unbalanced BNC
SCA Inputs (2)	10k $\Omega$ unbalanced BNC

### 8301G RECEIVER SPECIFICATIONS

<b>Operating Frequency</b>	1.4 GHz - 1.9 GHz single-channel, fixed frequency.
<b>Baseband Frequency Response</b>	40 Hz - 53 kHz, +0.1 dB, -0.5 dB
Composite	53 kHz - 92 kHz, +0 dB, -2.5 dB
Monaural	40 Hz - 15 KHz, $\pm$ 0.5 dB
<b>Left &amp; Right Channel demodulated</b>	40 Hz - 15 kHz, $\pm$ 0.5 dB (75 $\mu$ sec de-emphasis)
<b>Low pass Filter</b>	-40 dB at 19 kHz
<b>Harmonic and IM Distortion</b>	
Monaural	< 0.3%, 40 Hz - 15 kHz (50 $\mu$ sec de-emphasis)
Left & Right Channel demodulated	< 0.3%, 40 Hz - 15 kHz (50 $\mu$ sec de-emphasis)
<b>RF sensitivity</b>	20 $\mu$ V (65 dB or better SNR de-emphasized, $\pm$ 75 kHz deviation)
<b>AM Rejection</b>	55 dB (400 Hz @ 100% modulation)
<b>Spurious and Image Rejection</b>	60 dB
<b>Signal Outputs</b>	
Monaural	+6 dBm, 600 $\Omega$ balanced, adjustable from +3 dBm to +9 dBm
MPX	+6 dBm for 56% modulation, 600 $\Omega$ , BNC
SCA 1 & 2 (for SCA Decoder)	+6 dBm, 600 $\Omega$ output impedance.



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