

查询"MHW8185D"供应商

The RF Line

CATV Amplifier Module

Features

- Specified for 77–, 110– and 128–Channel Loading
- Lower DC Current Requirements
- Excellent Distortion Performance
- Excellent DC Current Stability over Temperature
- Silicon Bipolar Transistor Technology
- Unconditionally Stable Under All Load Conditions

Applications

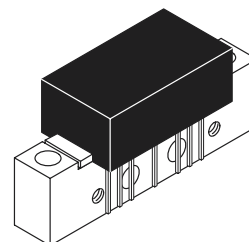
- CATV Systems Operating in the 40 to 870 MHz Frequency Range
- Output Stage Amplifier in Optical Nodes, Line Extenders and Trunk Distribution Amplifiers for CATV Systems
- Driver Amplifier in Linear General Purpose Applications
- Amplifiers Requiring Lower Power Dissipation While Maintaining Excellent Output Performance

Description

- 24 Vdc Supply, 40 to 870 MHz, CATV Forward Power Doubler Amplifier

MHW8185L

**870 MHz
19.4 dB GAIN
128–CHANNEL
CATV AMPLIFIER**



CASE 714Y–04, STYLE 1

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
RF Voltage Input (Single Tone)	V_{in}	+70	dBmV
DC Supply Voltage	V_{CC}	+28	Vdc
Operating Case Temperature Range	T_C	–20 to +100	°C
Storage Temperature Range	T_{stg}	–40 to +100	°C

ELECTRICAL CHARACTERISTICS ($V_{CC} = 24$ Vdc, $T_C = +30^\circ\text{C}$, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	870	MHz
Power Gain	G_p	18	18.5	19	dB
		19	19.4	20.5	
Slope	S	0.4	0.9	1.4	dB
Gain Flatness (40–870 MHz, Peak-to-Valley)	G_F	—	0.3	0.8	dB
Return Loss — Input/Output ($Z_o = 75$ Ohms)	IRL/ORL				
@ 40 MHz		20	—	—	dB
@ $f > 40$ MHz (Derate)		—	—	0.007	dB/MHz
Composite Second Order					dBc
($V_{out} = +40$ dBmV/ch., Worst Case) 128–Channel FLAT	CSO_{128}	—	–69	–62	
($V_{out} = +44$ dBmV/ch., Worst Case) 110–Channel FLAT	CSO_{110}	—	–70	–64	
($V_{out} = +44$ dBmV/ch., Worst Case) 77–Channel FLAT	CSO_{77}	—	–85	–68	

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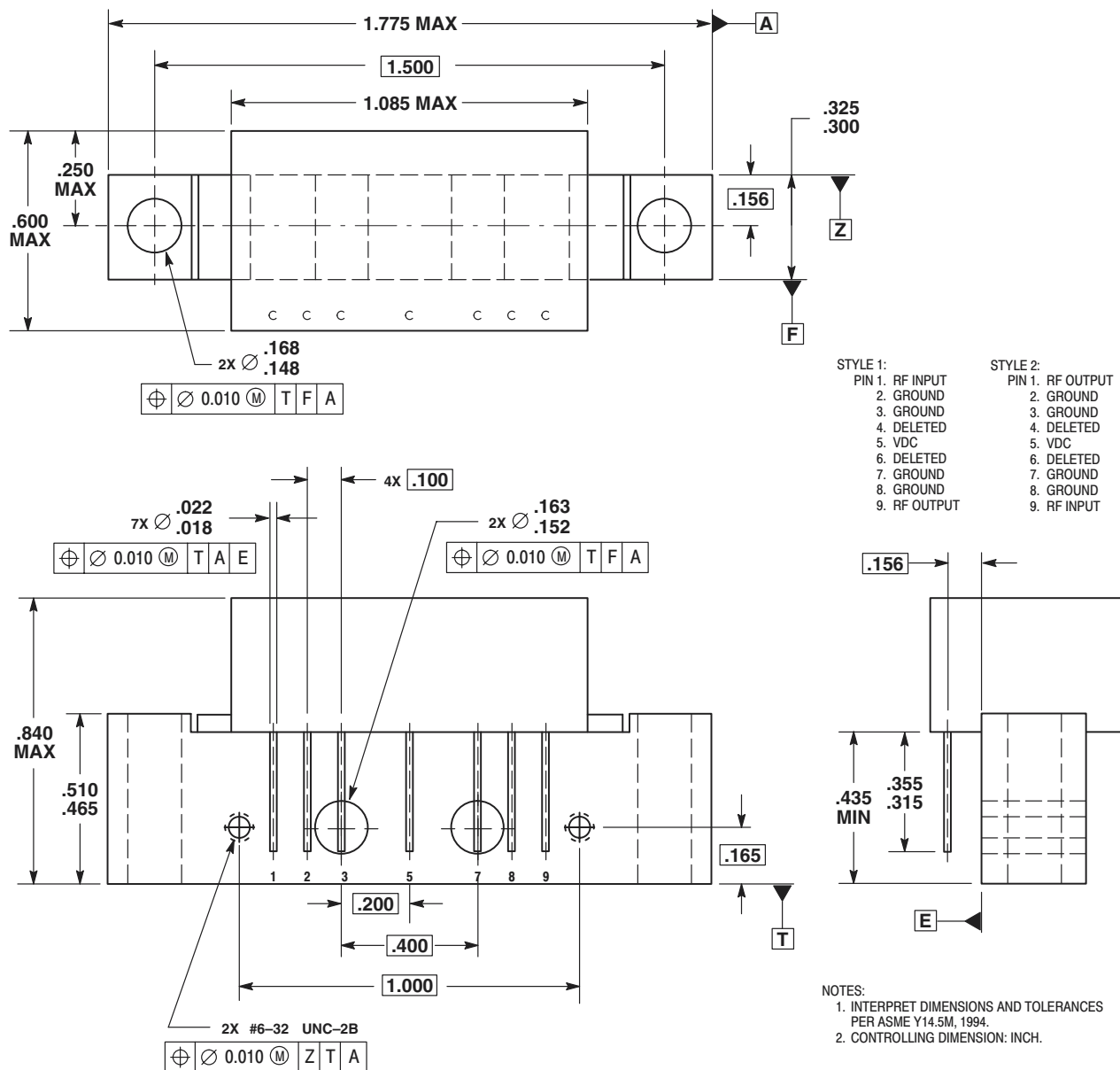
ELECTRICAL CHARACTERISTICS — continued ($V_{CC} = 24$ Vdc, $T_C = +30^\circ\text{C}$, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Cross Modulation Distortion @ Ch 2 ($V_{out} = +40$ dBmV/ch., FM = 55 MHz) 128-Channel FLAT ($V_{out} = +44$ dBmV/ch., FM = 55 MHz) 110-Channel FLAT ($V_{out} = +44$ dBmV/ch., FM = 55 MHz) 77-Channel FLAT	XMD ₁₂₈ XMD ₁₁₀ XMD ₇₇	— — —	−72 −66 −69	−64 −63 −67	dBc
Composite Triple Beat ($V_{out} = +40$ dBmV/ch., Worst Case) 128-Channel FLAT ($V_{out} = +44$ dBmV/ch., Worst Case) 110-Channel FLAT ($V_{out} = +44$ dBmV/ch., Worst Case) 77-Channel FLAT	CTB ₁₂₈ CTB ₁₁₀ CTB ₇₇	— — —	−66 −63 −70	−63 −61 −68	dBc
Noise Figure 50 MHz 550 MHz 750 MHz 870 MHz	NF	— — — —	5.3 5.8 6.6 7.8	6.2 — — 8.5	dB
DC Current ($V_{DC} = 24$ V, $T_C = -20$ to $+100^\circ\text{C}$)	I _{DC}	345	365	385	mA

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PACKAGE DIMENSIONS

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CASE 714Y-04
ISSUE E

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