

CATV Amplifier Module

Features

- Specified for 77 - and 110-Channel Loading
- Excellent Distortion Performance
- Silicon Bipolar Transistor Technology
- Unconditionally Stable Under All Load Conditions

Applications

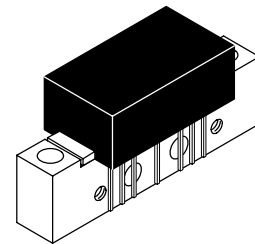
- CATV Systems Operating in the 40 to 750 MHz Frequency Range
- Output Stage Amplifier in Optical Nodes, Line Extenders and Trunk Distribution Amplifiers for CATV Systems
- Driver Amplifier in Linear General Purpose Applications

Description

- 24 Vdc Supply, 40 to 750 MHz, CATV Forward Power Doubler Amplifier Module
- Replaced MHW7185C. There are no form, fit or function changes with this part replacement.
- RoHS Compliant

MHW7185CN

**750 MHz
19.4 dB GAIN
110-CHANNEL
CATV AMPLIFIER MODULE**



CASE 714Y-04, STYLE 1

Table 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

Table 2. Electrical Characteristics ($V_{CC} = 24$ Vdc, $T_C = +30^\circ\text{C}$, 75 Ω system unless otherwise noted)

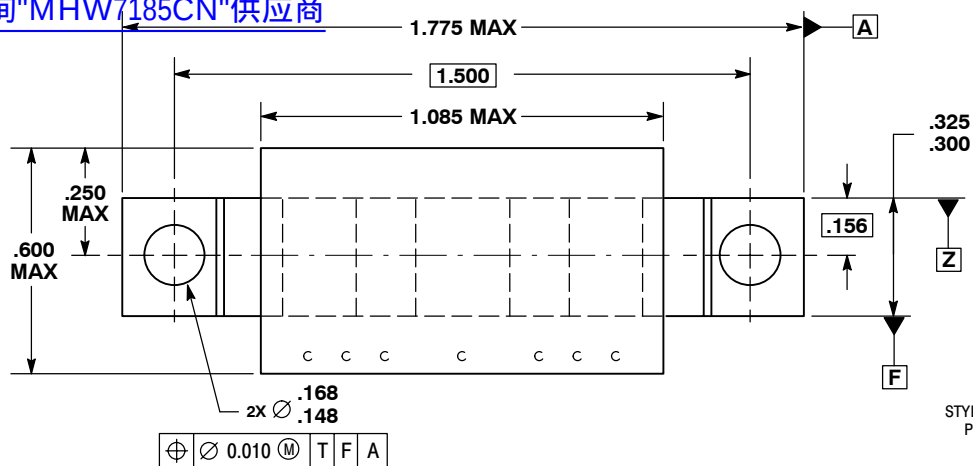
Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	750	MHz
Power Gain 50 MHz 750 MHz	G_p	18.3 19	18.8 19.4	19.3 20	dB
Slope 40 - 750 MHz	S	0	0.4	1.0	dB
Gain Flatness (40 - 750 MHz, Peak to Valley)	G_F	—	0.3	0.6	dB
Return Loss — Input/Output ($Z_o = 75$ Ohms) @ 40 MHz @ $f > 40$ MHz (Derate)	IRL/ORL	19 —	— —	— 0.006	dB dB/MHz
Composite Second Order ($V_{out} = +44$ dBmV/ch., Worst Case) 110-Channel FLAT 77-Channel FLAT	CSO_{110} CSO_{77}	— —	-72 -80	-64 -68	dBc
Cross Modulation Distortion @ Ch 2 ($V_{out} = +44$ dBmV/ch., FM = 55 MHz) 110-Channel FLAT 77-Channel FLAT	XMD_{110} XMD_{77}	— —	-66 -70	-63 -68	dBc

Table 2. Electrical Characteristics ($V_{CC} = 24\text{ Vdc}$, $T_C = +30^\circ\text{C}$, $75\ \Omega$ system unless otherwise noted) **(continued)**

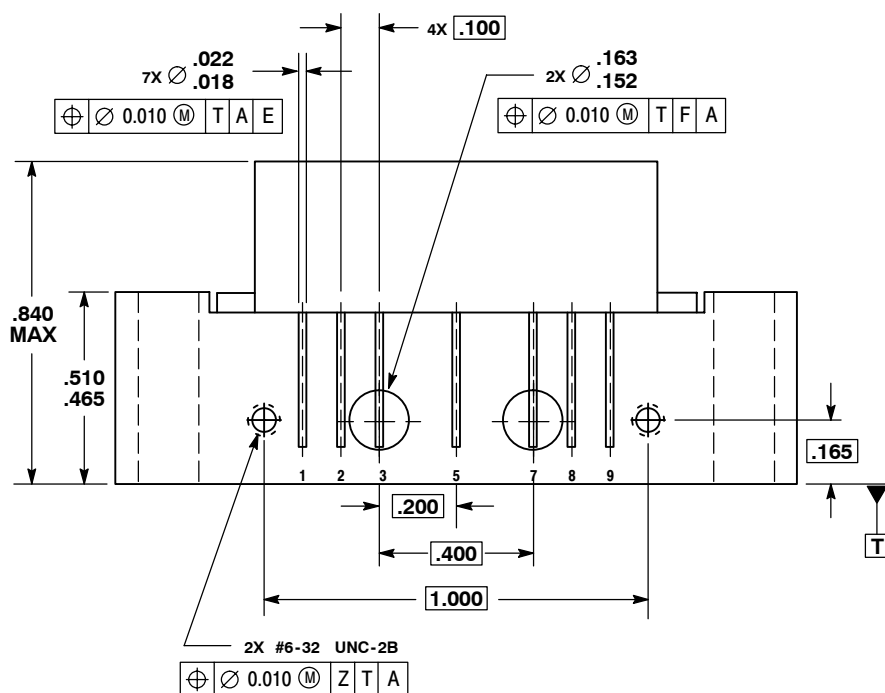
Characteristic	Symbol	Min	Typ	Max	Unit
Composite Triple Beat ($V_{out} = +44\text{ dBmV/ch.}$, Worst Case)					dBc
110-Channel FLAT	CTB_{110}	—	-64	-62	
77-Channel FLAT	CTB_{77}	—	-71	-69	
Noise Figure	NF				dB
50 MHz		—	5.0	6.0	
550 MHz		—	5.8	—	
750 MHz		—	6.2	7.5	
DC Current ($V_{DC} = 24\text{ V}$, $T_C = 30^\circ\text{C}$)	I_{DC}	365	400	435	mA

PACKAGE DIMENSIONS

[查询"MHW7185CN"供应商](#)



STYLE 1:
PIN 1. RF INPUT
2. GROUND
3. GROUND
4. DELETED
5. VDC
6. DELETED
7. GROUND
8. GROUND
9. RF OUTPUT



NOTES:
1. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: INCH.

CASE 714Y-04
ISSUE H

MHW7185CN

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