ARCHIVE INFORMATION

The RF Line

High Output Mirror Power Doubler 860 MHz CATV Amplifier

- Specified for 77, 110 and 128-Channel Performance
- Broadband Power Gain @ f = 40-860 MHz $G_p = 20.2 \text{ dB (Typ)}$
- Broadband Noise Figure
 NF = 7 dB (Typ) @ 860 MHz
- All Gold Metallization
- 7 GHz f_T Ion-Implanted Transistors
- Composite Triple Beat @ 128–Channel Loading CTB = -66 dB (Typ)

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

MHW8205R

20.2 dB GAIN 860 MHz 128-CHANNEL CATV AMPLIFIER

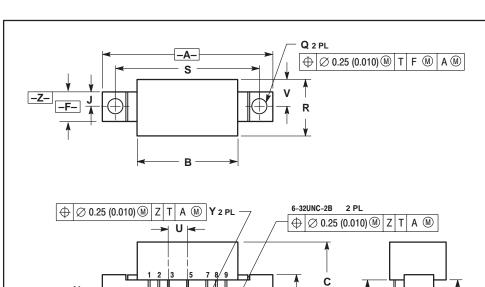


ELECTRICAL CHARACTERISTICS (V_{CC} = 24 Vdc, T_{C} = +30°C, 75 Ω system unless otherwise noted)

Characteristic Frequency Range		Symbol	Min 40	Тур	Max 860	Unit MHz
		BW				
Power Gain 860 MHz	50 MHz	Gp	19.3 20	19.8 20.2	20.3 21.5	dB
Slope	40-860 MHz	S	0	.4	1.5	dB
Gain Flatness (40-860 MHz, Peak to Valley)		_	_	0.3	1.0	dB
Return Loss — Input/Output ($Z_0 = 75 \text{ Oh}$ @ f > 40 MHz (Derate)	ms) @ 40 MHz	IRL/ORL	19 —	_	— 0.006	dB dB/MHz
Composite Second Order (V _{out} = +40 dBmV/ch., Worst Case) (V _{out} = +44 dBmV/ch., Worst Case)	128-Channel FLAT 110-Channel FLAT 77-Channel FLAT	CSO ₁₂₈ CSO ₁₁₀ CSO ₇₇	_ _ _	-69 -70 -80	-60 -63 -68	dBc
Cross Modulation Distortion @ Ch 2 (V _{out} = +40 dBmV/ch., FM = 55 MHz) (V _{out} = +44 dBmV/ch., FM = 55 MHz)	128-Channel FLAT 110-Channel FLAT 77-Channel FLAT	XMD ₁₂₈ XMD ₁₁₀ XMD ₇₇	_ _ _	-72 -67 -71	-64 -62 -68	dBc
Composite Triple Beat (V _{out} = +40 dBmV/ch., Worst Case) (V _{out} = +44 dBmV/ch., Worst Case)	128-Channel FLAT 110-Channel FLAT 77-Channel FLAT	CTB ₁₂₈ CTB ₁₁₀ CTB ₇₇	_ _ _	-66 -63 -71	-63 -61 -69	dBc
Noise Figure	50 MHz 550 MHz 750 MHz 860 MHz	NF	_ _ _ _	5.0 5.8 6.2 7.0	6.0 — — 8.0	dB
DC Current (V _{DC} = 24 V, T _C = 30°C)		I _{DC}	365	400	435	mA



PACKAGE DIMENSIONS



D7PL

CASE 714Y-03 **ISSUE D**

⊕ Ø 0.51 (0.020) M T A M X

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NOTES

- 1. DIMENSIONING AND TOLERANCING PER ANSI
- Y14.5M, 1982. 2. CONTROLLING DIMENSION: INCH.

	INC	HES	MILLIMETERS			
DIM	MIN	MAX	MIN	MAX		
Α		1.775		45.08		
В		1.085		27.56		
С		0.840		21.34		
D	0.018	0.022	0.46	0.56		
Е	0.465	0.510	11.81	12.95		
F	0.300	0.325	7.62	8.25		
G	0.100 BSC		2.54 BSC			
J	0.156	BSC	3.96	BSC		
K	0.315	0.355	8.00	8.50		
L	1.00	1.00 BSC		25.40 BSC		
N	0.165 BSC		4.19 BSC			
Р	0.100	BSC	2.54	BSC		
Q	0.148	0.168	3.76	4.27		
R		0.600		15.24		
S	1.500 BSC		38.10 BSC			
U	0.200 BSC		5.08 BSC			
٧		0.250		6.35		
W	0.435	0.450	11.05	11.43		
Х	0.400 BSC		10.16 BSC			
Υ	0.152	0.163	3.85	4.15		

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STYLE 2: PIN 1. RF OUTPUT 2. GROUND

- 3 GROUND
- DELETED
- 5. VDC 6. DELETED
- GROUND
- 9 RF INPUT

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