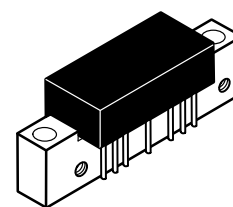


The RF Line 128-Channel (860 MHz) CATV Line Extender Amplifier

- Specified for 128-Channel Performance
- Broadband Power Gain — @ $f = 40\text{--}860\text{ MHz}$
 $G_p = 24\text{ dB (Typ)}$
- Broadband Noise Figure
 $NF = 7.5\text{ dB (Max) @ } 860\text{ MHz}$
- Superior Gain, Return Loss and DC Current Stability with Temperature
- All Gold Metallization
- 7 GHz f_T Ion-Implanted Transistors

MHW8242

**24 dB GAIN
860 MHz
128-CHANNEL
CATV AMPLIFIER**



CASE 714-06, STYLE 1

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
RF Voltage Input (Single Tone)	V_{in}	+55	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 ($V_{CC} = 24\text{ Vdc}$, $T_C = +30^\circ\text{C}$, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	860	MHz
Power Gain	G_p	50 MHz	23.2	24.8	dB
		860 MHz	24	26.5	
Slope	S	0	1	2.5	dB
Gain Flatness (40-860 MHz, Peak To Valley)	—	—	0.4	0.8	dB
Return Loss — Input/Output ($Z_O = 75\text{ Ohms}$)	IRL/ORL	@ 40 MHz	20	—	dB
		@ $f > 40\text{ MHz (Derate)}$	—	—	0.007
Composite Second Order ($V_{out} = +38\text{ dBmV/ch.}$, Worst Case)	CSO_{128}	—	-65	-60	dBc
Cross Modulation Distortion @ Ch 2 ($V_{out} = +38\text{ dBmV/ch.}$, FM = 55 MHz)	XMD_{128}	—	-65	-60	dBc
Composite Triple Beat ($V_{out} = +38\text{ dBmV/ch.}$, Worst Case)	CTB_{128}	—	-63	-60	dBc
Noise Figure	NF	50 MHz	—	5.5	dB
		860 MHz	—	7.5	
DC Current	I_{DC}	280	—	350	mA

