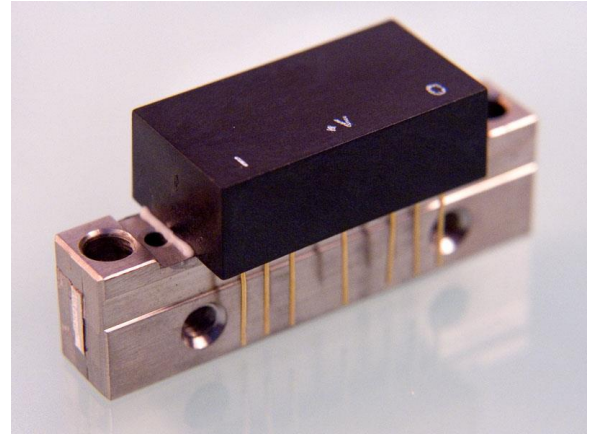


Features: (typical values)

- Ultra High Linearity
- Low Noise Figure
- Rugged Construction
- Operation over wide voltage range
- Usable for 50 ohm operation
- Unconditional Stability

**20 – 1200 MHz
22dB CATV Ultra-linear
Amplifier**



Maximum Ratings

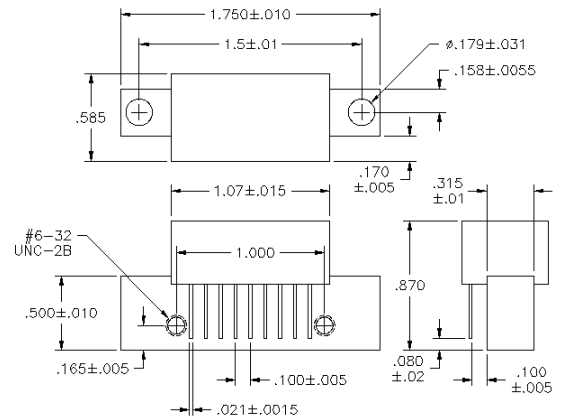
Storage temperature -40°C to +100°C
 DC Operating Voltage +28.0 volts
 RF Input Voltage 40 dBmV max.
 Operating Base Temp. +100°C

Specifications @ Tcase = 30°C (Referenced to 75 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency Range		20	1200	MHz.
Power Gain	f = 50MHz.	21.0	23.0	dB.
Cable equivalent slope	f = 40MHz. TO 1200MHz.	0	1.5	dB.
Gain Flatness (peak to valley)	f = 40MHz. TO 1200MHz.		0.8	dB.
Input/Output Return Loss	f = 40 To 550 MHz.	18		dB.
Input/Output Return Loss	f = 550To 1200 MHz.	13		dB.
Composite Triple Beat (CTB)	77 channels flat, Vo=44dBmV. Measured @ Channel 78		-57	dB.
Cross Modulation (XMOD)	77 channels flat, Vo=44dBmV. Measured @ Channel 2		-57	dB.
Composite 2 nd Order (CSO)	77 channels flat, Vo=44dBmV. Measured @ Channel 78		-57	dB.
IP ₃ /IP ₂	2 tones @ +15dbm per tone	46/75		dBm.
Noise Figure (NF)	@ 550 MHz 2.3 dB		5.0	dB.
P1dB	@500 MHz 35 dbm	30.0		dBm
Total Current (I _{TOT})	@ +24V/400mA		440	mA.

Pin Configuration

PIN#	Description
1	Input
2,3,7,8	Ground
5	+V.
9	Output
4, 6	Not used



FINAL ELECTRICAL TEST REQUIREMENTS

TEST (REF 75 OHM) Vdc +24V	LIMITS +30°C	ACTUAL DATA
Power Gain @50 MHz	21.0 dB min 23.0 dB max	22.6
Cable equivalent slope 40 MHz to 1200 MHz	1.5 dB Max	0.4
Gain Flatness (Peak to Valley) 40 MHz to 1200 MHz	0.8 dB max	0.3
Noise Figure @ 550 MHz	5.5 dB max	2.2
DC Current at +24 Vdc	450 mA max	405
VSWR In (75 OHM) @40 to 550 MHz @550 to 1200 MHz	16 dB Min 11 dB Min	17.8 13.5
VSWR Out (75 OHM @40 to 550 MHz @550 to 1200 MHz	16 dB Min 11 dB Min	17.0 14.0
IP3 @ Pout = +15 .0 dBm 1) F(1,2)= 41,42 MHz Fc(40,43 MHz) 2) F(1,2)= 548,549 MHz Fc(547,550) MHz) 3.)F(1,2)= 1198,1199 MHz Fc(1197,1200) MHz)	+46.0 dBm min	50.0
IP2 @ Pout = +15.0 dBm 1) (F1-F2) = (550-510) MHz Fc = 40 MHz 2) (F1+F2) = (210+340) MHz Fc = 550 MHz 3.) (F1+F2) = 510+690) MHz Fc= 1200 MHz	+65.0 dBm min	70.0
Composite Triple Beat (CTB) 77 channels flat, Vo=44dBmV. Measured @ Channel 78	-57 dB Max	N/A
Cross Modulation (XMOD) 77 channels flat, Vo=44dBmV. Measured @ Channel 2	-57 dB Max	N/A
Composite 2 nd Order (CSO) 77 channels flat, Vo=44dBmV. Measured @ Channel 78	-57 dB Max	N/A
Stability Test for all frequency range where S21 > 0 dB	0 dB max	<0

