

**Features**

Excellent linearity  
 Extremely low noise  
 High gain  
 Excellent return loss properties

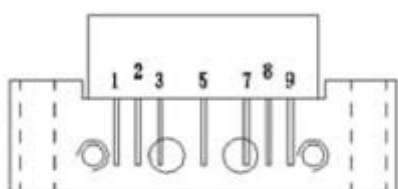
**Applications**

Single module line extender in CATV systems operating in the 5 to 75 MHz frequency range.

**Description**

Hybrid high dynamic range amplifier module operating at a supply voltage of 24V(DC) in a SOT115J package. The Module consists of two cascaded stages both in cascade Configuration

**PIN CONFIGURATION**



Side view

**Fig.1 Simplified outline**

PIN	DESCRIPTION
1	input
2	common
3	common
5	+VB
7	common
8	common
9	output

**Quick Reference Data**

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$G_p$	power gain	$f=10\text{MHz}$	28.5	30	dB

$I_{tot}$	total current consumption (DC)	$V_B=24V$	110	135	mA
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**Limiting Values**

In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
$V_B$	supply voltage	-	25	V
$V_i$	RF input voltage	-	55	dBmV
$T_{stg}$	storage temperature	-20	+100	°C
$T_{mb}$	mounting base operating temperature	-20	+100	°C

**Characteristics**

Bandwidth 5 to 75 MHz;  $V_B=24V$ ;  $T_{case}=30^\circ C$  ;  $Z_s=Z_L=75\Omega$

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$G_p$	power gain	f=10MHz	28.5	30	dB
		f=200MHz	31	-	dB
SL	slope cable equivalent	f=10 to 200 MHz	-0.2	1.0	dB
FL	flatness of frequency response	f=10 to 200 MHz	-	$\pm 0.35$	dB
$S_{11}$	input return losses	f=5 to 200 MHz	18	-	dB
$S_{22}$	output return losses	f=5 to 200 MHz	16	-	dB
CTB	composite triple beat	4 channels flat; $V_o=50dBmV$ ; measured at 77.25 MHz	-	-65	dB
$X_{mod}$	cross modulation	4 channels flat; $V_o=50dBmV$ ; measured at 49.75 MHz	-	-60	dB
CSO	composite second order distortion	4 channels flat; $V_o=50dBmV$ ; measured at 77.25 MHz	-	-65	dB
$V_o$	output voltage	Dim= -60 dB; note 1	62	-	dBmV
F	noise figure	f =75MHZ	-	5.5	dB
$I_{tot}$	total current consumption (DC)	Note 2	110	135	mA

**Note:**

1. Measured according to DIN45004B;  
fp=65.75MHz; Vp=Vo; fq=77.25MHz;  
Vq=Vo-6dB; fr=79.25MHz; Vr=Vo-6dB;  
measured at fp+fr-fq=67.75MHz.
2. The module normally operates at VB=24V, but is able to withstand supply transients up to 28 V.

**Package Outline**

Rectangular single-ended package; aluminum flange; 2 vertical mounting holes; 2 ×6-32 UNC AND 2 extra horizontal mounting holes; 7 gold-plated in-line leads

