



# DCA-50-30

www.Shireeninc.com

## DCA 50 $\Omega$ Series

## 0Hz – 17MHz DC Coupled Amplifier

### Features

- 3-dB Bandwidth: 17MHz
- Gain: 30dB
- $P_{1dB}$ : +14dBm
- IP3: +25dBm
- Input/Output: 50  $\Omega$
- DC Power: 12V
- SMA Connector

### Description

DCA-50-30 is a 50  $\Omega$  30dB gain DC Coupled Amplifier operates with 3-dB bandwidth of 17MHz, designed for low frequency, small signal application.

### Electrical Specifications @ +25 °C, $Z_{in}$ , $Z_{out}$ = 50 $\Omega$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range (-3dB)	MHz	0		17
Power Gain $f = 0\text{Hz}$	dB		30	
$f = 1\text{MHz}$	dB		29.9	
$f = 17\text{MHz}$	dB		27.3	
Voltage Gain ( $R_L = \infty$ ) $f = 0\text{Hz}$			64	
$P_{1dB}$ $f = 100\text{KHz}$	dBm		+14	
$f = 17\text{MHz}$	dBm		+14	
IP3 $f = 17\text{MHz}$	dBm		+25	
Input Voltage Noise	nV/ $\sqrt{\text{Hz}}$		0.92	
Output Voltage $f = 100\text{KHz}$ $R_L = \infty$	Vp-p		8.0	
Pin= -14dBm $f = 17\text{MHz}$ $R_L = \infty$	Vp-p		6.0	
VSWR $f = 300\text{KHz} - 17\text{MHz}$				
Input VSWR			1.12:1	
Output VSWR			1.15:1	
DC Power Supply	V	8	12	15
Supply Current	mA		45	



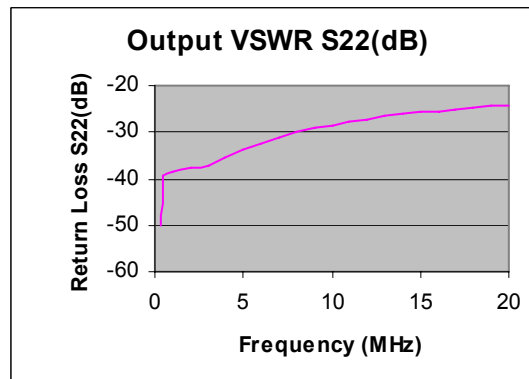
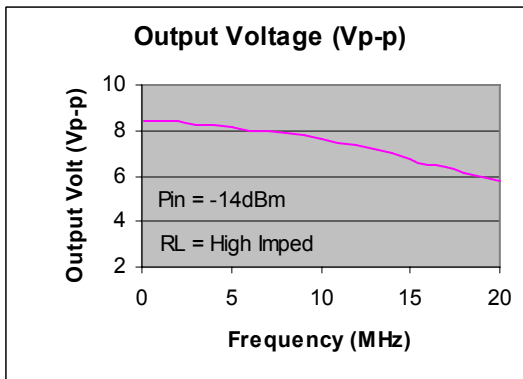
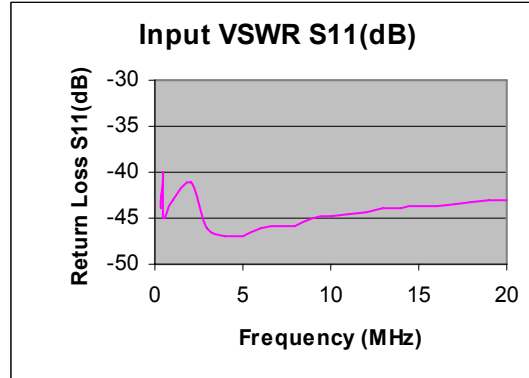
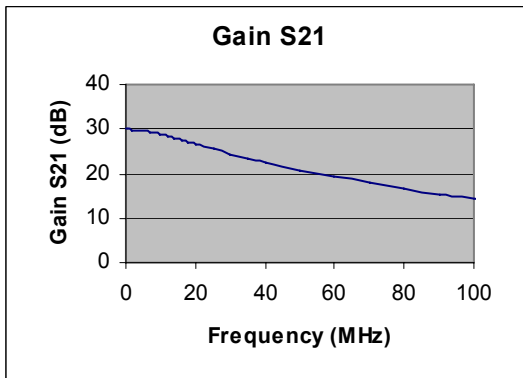
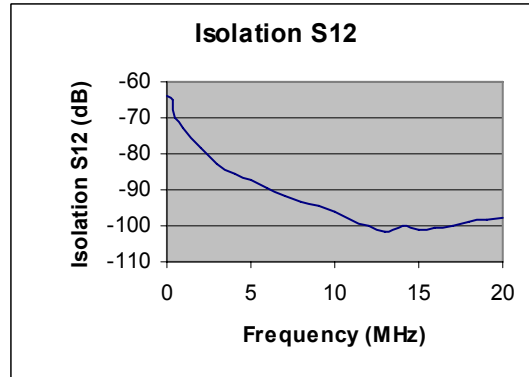
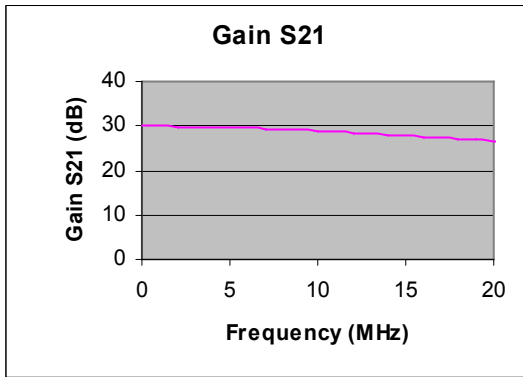
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## Typical Performance @ +25 °C

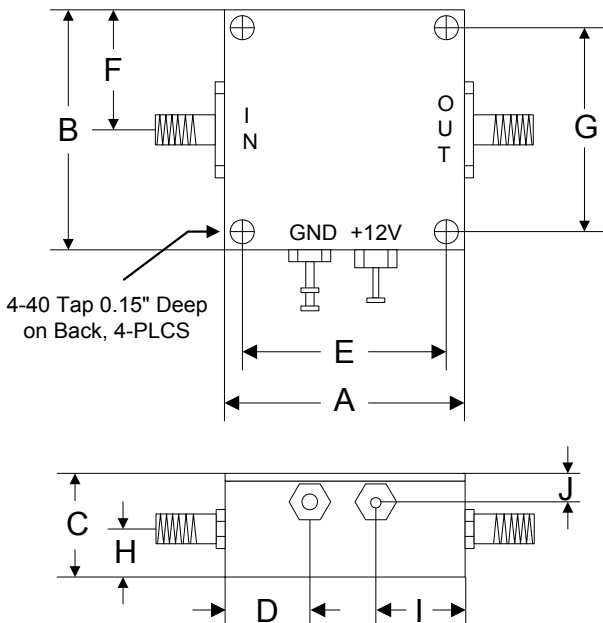




### Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+13dBm
Input DC Voltage	± 2V
Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

### Outline



	A	B	C	D	E	F	G	H	I	J
<b>Inch</b>	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
<b>mm</b>	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76