WIDE BAND LOW NOISE AMPLIFIER 6GHZ~18GHZ

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
A	PRODUCTION		

UCL-LNA0618-35-27-S

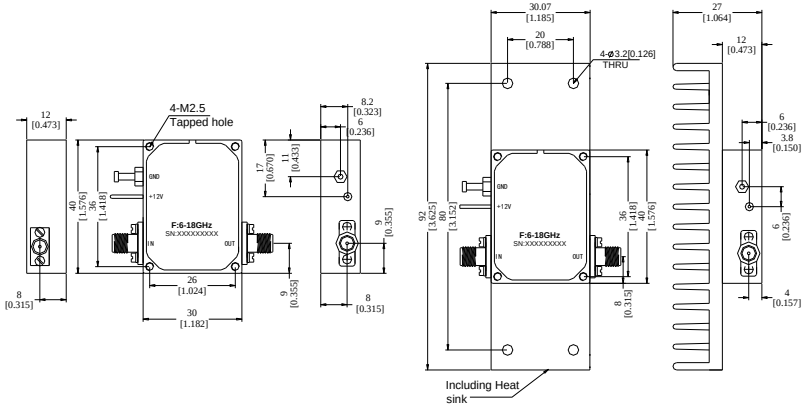
SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Min
Frequency Range	6		12	12		18	GHz
Gain	36	43	49	36	44	46	dB
Gain Flatness		±3.0			±2.0		dB
Gain Variation Over Temperature (-45℃~+85℃)		±1.5			±1.5		dB
Noise Figure		1.3	2.0		1.6	2.0	dB
Input VSWR		2.0	2.5		2.5		: 1
Output VSWR		1.8	2.5		1.8	2.5	: 1
Output 1dB Compression Point (P1dB)	26	28		25	27		dBm
Saturated Output Power (Psat)		29			28		dBm
Output Third Order Intercept (OIP3)		36			34		dBm
Isolation S12		-65			-65		dB
Supply Current (Vcc=+12V)		480	1000		480	1000	mA

Outline Drawing:

All Dimensions in mm (inches)

Heat Sink required during operation(Sold Seperately)



Weight	3.17ounces	Impedance	50ohms
Input /Output Connectors	SMA-Female	Material	Copper
Finish	Gold Plated	Package Sealing	Epoxy Sealed (Standard)
			Hermetically Sealed (Option with extra charge)

Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power (RFIN)	-8dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing

Power OFF Procedure

Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground

Environmental Specifications

Operational Temperature	-45ºC~+85ºC
Storage Temperature	-55ºC~+125ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

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TITLE

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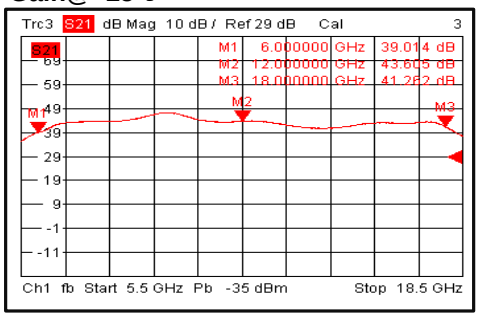
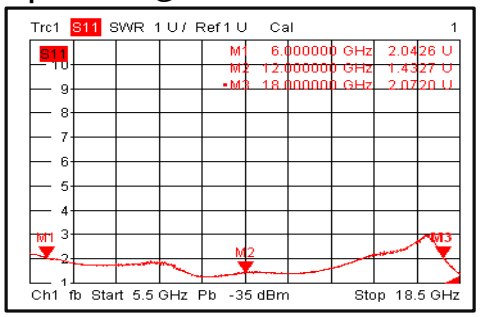
SIZE	CAGE CODE	MODEL	REV
A		UCL-LNA0618-35-27-S	A

SCALE 1:1 | DOC FAMILY

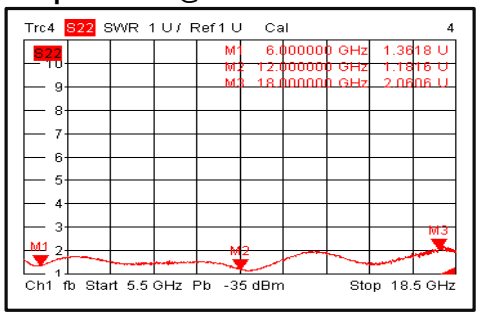
Gain@+25℃



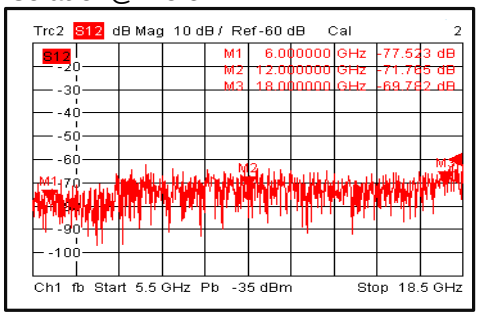
Input VSWR@+25℃



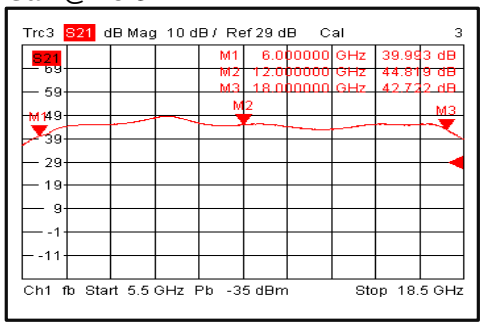
Output VSWR@+25℃



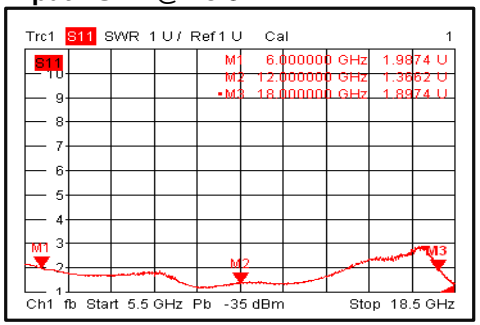
Isolation@+25℃



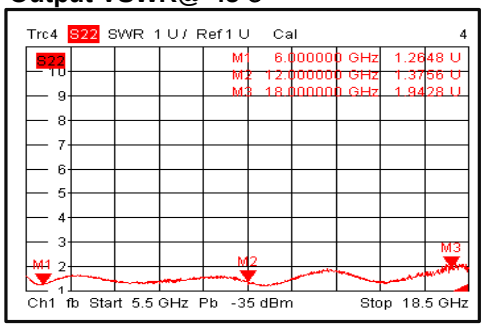
Gain@-45℃



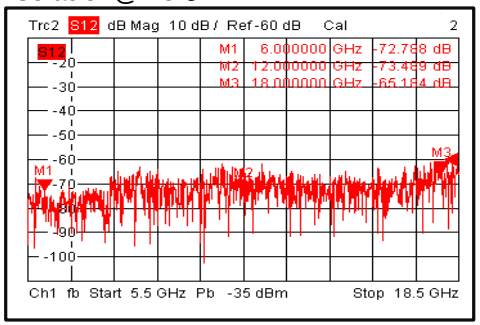
Input VSWR@-45℃



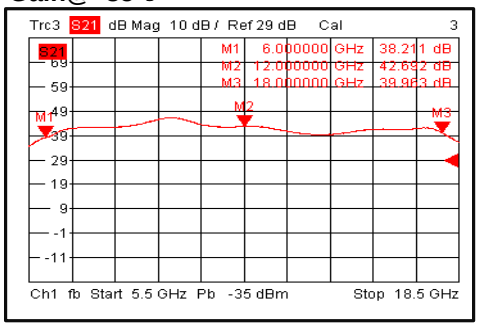
Output VSWR@-45℃



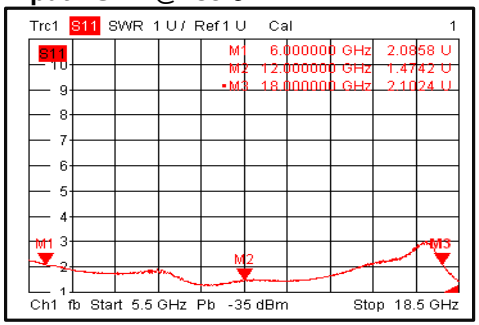
Isolation@-45℃



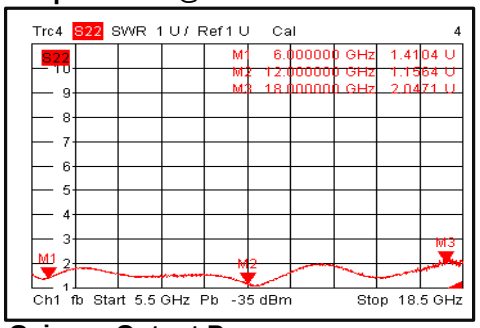
Gain@+85℃



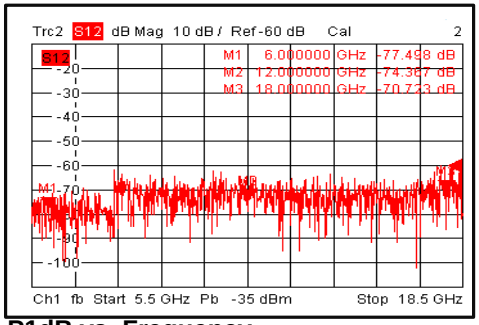
Input VSWR@+85℃



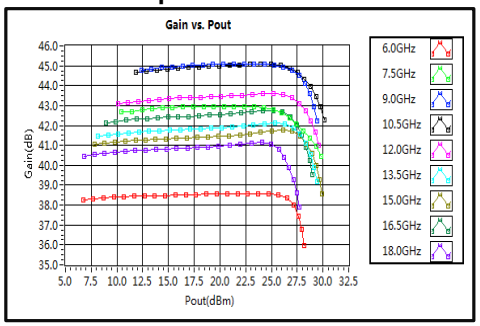
Output VSWR@+85℃



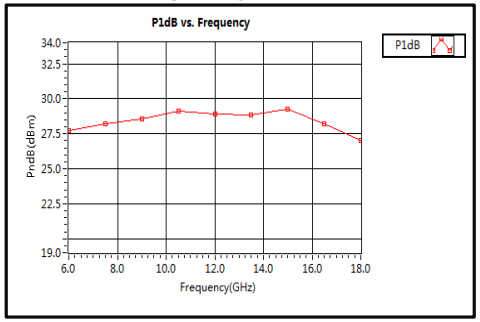
Isolation@+85℃



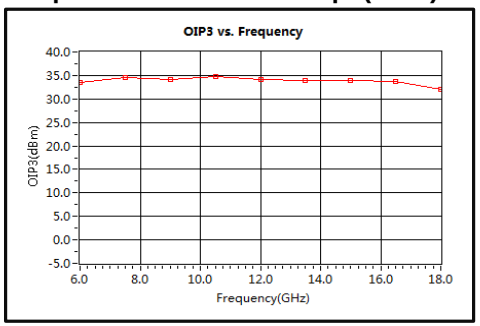
Gain vs. Output Power



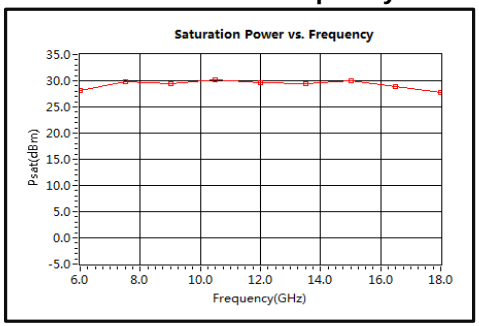
P1dB vs. Frequency



Output Third Order Intercept (OIP3)

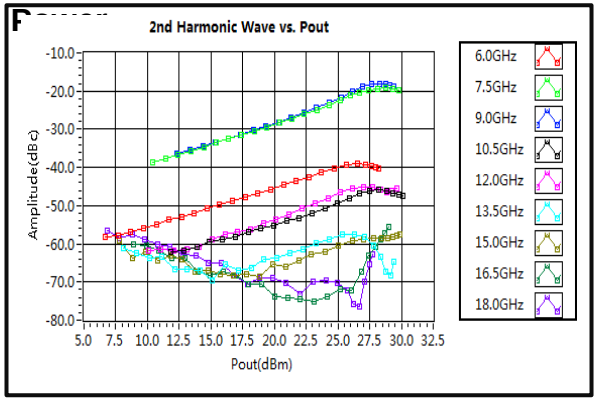


Saturation Power vs. Frequency

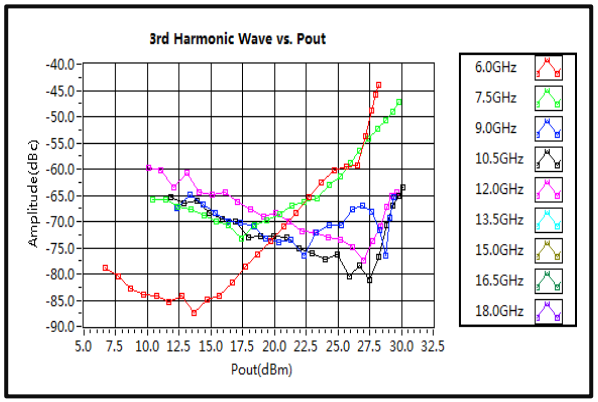


Noise Figure

2nd Harmonic Wave Output



3rd Harmonic Wave Output Power



4th Harmonic Wave Output Power