

# NC346

## 10 MHz to 55 GHz



### Broadband Calibrated Noise Sources for Noise Figure Measurements

The Noisecom NC346 Series is designed for precision noise figure measurement applications. The vswr has been improved, reducing multiple reflections of the test signals and significantly increasing the measurement accuracy of most noise figure set-ups.

The NC346 Series noise sources have broadband coverage and extremely good temperature and voltage stability, for the finest noise figure meter-compatible laboratory standards. Outputs of 6, 15.5 and 22 dB ENR are available, allowing the units to accurately measure noise figures up to 20, 30 and 36 dB respectively.

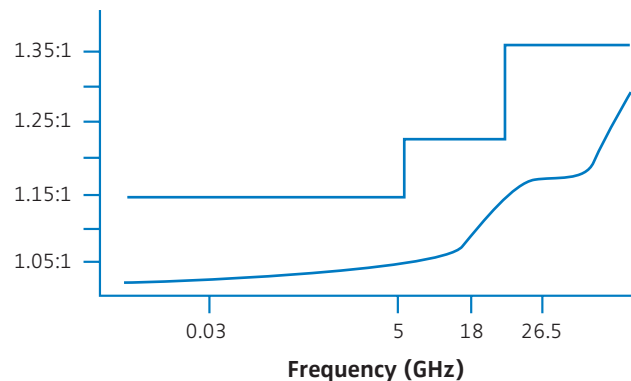
The return loss of the noise sources is measured in both the on and off states and is included in the calibration report provided with each noise source up to 40 GHz. Each noise source is also supplied with calibration data traceable to NIST.

### Specifications

Calibration	1 GHz steps
Temperature coefficient	Less than 0.009 dB/°C
Operating temperature	0°C to +55°C
Input power	+28 VDC $\pm$ 2 VDC at 15 mA typical for NC346 A, B & D
VSWR	Less than 1.15:1 from 10 MHz – 5 GHz for units with 5 – 7 dB or 14 –16 dB ENR
Regulator	Built-in
Voltage coefficient	< 0.002 dB/% $\Delta$ V

### VSWR

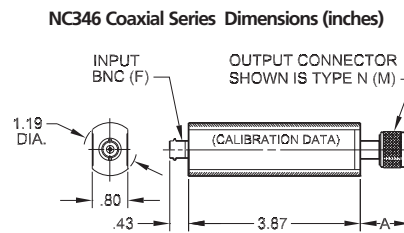
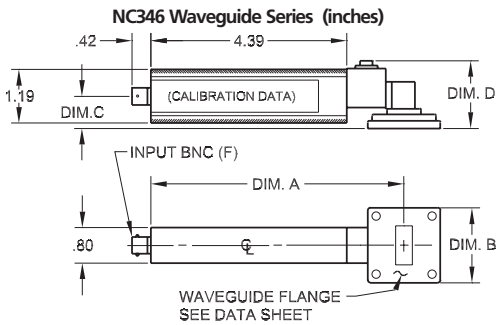
### Typical VSWR for NC346C



## NC346 Coaxial Series

Model	RF Connector	Frequency (GHz)	Output ENR (dB)	VSWR (maximum @ on/off)					I (max) (mA)
				0.01 - 5 GHz	5 - 18 GHz	18 - 26.5 GHz	26.5 - 40 GHz	40 - 60 GHz	
NC346A	SMA Male	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
NC346A Precision	APC3.5 Male	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
NC346A Option 1	N Male	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
NC346A Option 2	APC7	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
NC346A Option 4	N Female	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
NC346B	SMA Male	0.01 - 18.0	14 - 16	1.15:1	1.25:1				30
NC346B Precision	APC3.5 Male	0.01 - 18.0	14 - 16	1.15:1	1.25:1				30
NC346B Option 1	N Male	0.01 - 18.0	14 - 16	1.15:1	1.35:1				30
NC346B Option 2	APC7	0.01 - 18.0	14 - 16	1.15:1	1.25:1				30
NC346B Option 4	N Female	0.01 - 18.0	14 - 16	1.15:1	1.35:1				30
NC346C	APC3.5 Male	0.01 - 26.5	13 - 17	1.15:1	1.25:1	1.35:1			30
NC346D	SMA Male	0.01 - 18.0	19 - 25*	1.50:1	1.50:1				30
NC346D Precision	APC3.5 Male	0.01 - 18.0	19 - 25*	1.50:1	1.50:1				30
NC346D Option 1	N Male	0.01 - 18.0	19 - 25*	1.50:1	1.75:1				30
NC346D Option 2	APC7	0.01 - 18.0	19 - 25*	1.50:1	1.50:1				30
NC346D Option 3	N Female	0.01 - 18.0	19 - 25*	1.50:1	1.75:1				30
NC346E	APC3.5 Male	0.01 - 26.5	19 - 25*	1.50:1	1.50:1	1.50:1			30
NC346Ka	K Male**	0.10 - 40.0	10 - 17	v1.25:1	1.30:1	1.40:1	1.50:1		30
NC346V	V Male	0.10 - 55.0	7 - 21	1.50:1	1.50:1	1.75:1	2.00:1	2.50:1	30

\* Flatness better than  $\pm 2$  dB \*\* Compatible with SMA and APC3.5



## Waveguide Flange Chart

Waveguide Type	DIM A (in.)	DIM B (in.)	DIM C (in.)	DIM D (in.)
WR75	5.25	1.50 SQ	.98	1.60
WR90	5.68	1.68 SQ	.72	1.50
WR229	6.02	3.87	1.10	2.09

CONNECTOR	DIM A (in.)
SMA Male	0.50
APC 3.5 Male	0.50
N Male	1.14
APC 7	1.30
N Female	0.94
K Male	0.46
V Male	0.85

Mounting bracket available, order option NC346optMB

## NC346 Waveguide Series (Built-In Isolator\*)

Model	Flange	Frequency (GHz)	ENR (dB)	VSWR (on/off)	I (max) (mA)
NC346B-WR229	CPR229F	3.7 - 4.2	14 - 16**	1.20:1	30
NC346B-WR90	UG39/U	8.5 - 9.6	14 - 16**	1.20:1	30
NC346B-WR75	UBR120	10.5 - 13.0	14 - 16**	1.20:1	30

\*Inquire for other flanges or waveguide sizes \*\*Flatness better than  $\pm 0.15$  dB

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