

10 MHz to 55 GHz Noise Sources

Broadband Calibrated Noise Sources for Noise Figure Measurements

The Spanawave CNS346 Series is designed for precision noise figure measurement applications. The superior VSWR characteristics reduce multiple reflections of the test signals and significantly increase the measurement accuracy of most noise figure set-ups.

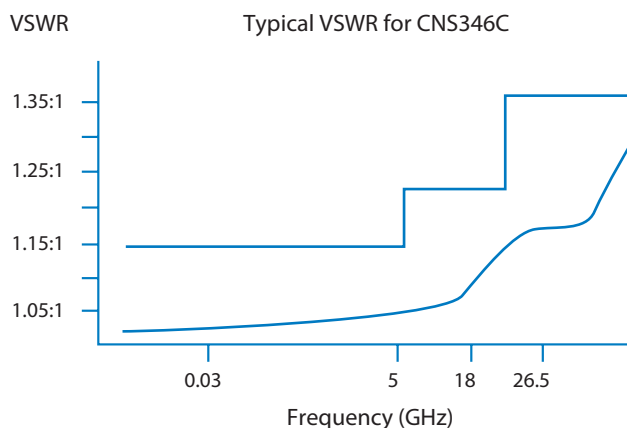
The CNS346 Series noise sources have broadband coverage and extremely good temperature and voltage stability, for the finest noise figure meter-compatible laboratory standards. Outputs of 6, 15.5 and 22 dB ENR are available, allowing the units to accurately measure noise figures up to 20, 30 and 36 dB 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 55 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 CNS346 A, B & C
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/% Δ V

Connector	DIM A (in.)
SMA Male	0.50 (0.65 max)
3.5 Male	0.50
N Male	1.14
7mm	1.30
N Female	0.94
2.92mm Male (K)	0.46
1.85mm Male (V)	0.85



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CNS346 Coaxial Series

Model	Option	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	
CNS346A	001	N Male	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
	002	7mm	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
	003	SMA Male	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
	004	N Female	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
	100	3.5 Male	0.01 - 18.0	5 - 7	1.15:1	1.25:1				30
CNS346B	001	N Male	0.01 - 18.0	14 - 16	1.15:1	1.25:1				30
	002	7mm	0.01 - 18.0	14 - 16	1.15:1	1.25:1				30
	003	SMA Male	0.01 - 18.0	14 - 16	1.15:1	1.25:1				30
	004	N Female	0.01 - 18.0	14 - 16	1.15:1	1.25:1				30
	100	3.5 Male	0.01 - 18.0	14 - 16	1.15:1	1.25:1				30
CNS346C		3.5 Male	0.01 - 26.5	13 - 17	1.15:1	1.25:1	1.35:1			30
CNS346CK40		2.92mm Male (K)*	0.10 - 40.0	10 - 17	v1.25:1	1.30:1	1.40:1	1.50:1		30
CNS346CK01		1.85mm Male (V)	0.10 - 55.0	7 - 21	1.50:1	1.50:1	1.75:1	2.00:1	2.50:1	30

* Compatible with SMA and 3.5 Male