

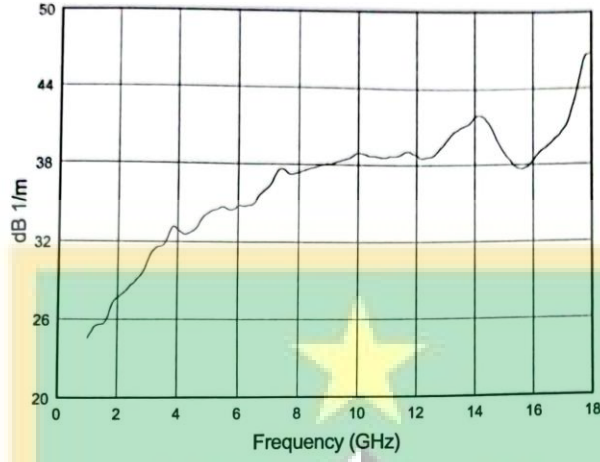
## LAMPIRAN

- Antena Horn

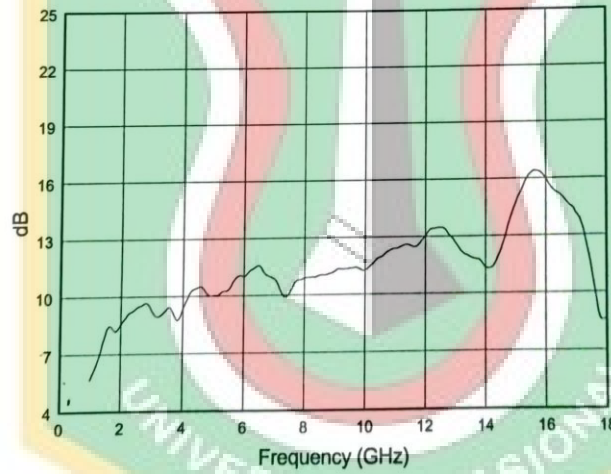
*Model 3115*  
**Double-Ridged**  
**Waveguide Horn**  
MANUAL



# TYPICAL DATA



Model 3115 Antenna Factor at 1 meter



Model 3115 Gain

## SPECIFICATIONS

### ELECTRICAL

Frequency Range	1 – 18 GHz
VSWR Ratio (AVG)	<1.5:1
Maximum Continuous Power	300 Watts
Peak Power	500 Watts
Impedance	50 $\Omega$
Connector	Type N precision female
Front to Back Ratio	20 dB
Cross Polarization	20 dB minimum

### PHYSICAL

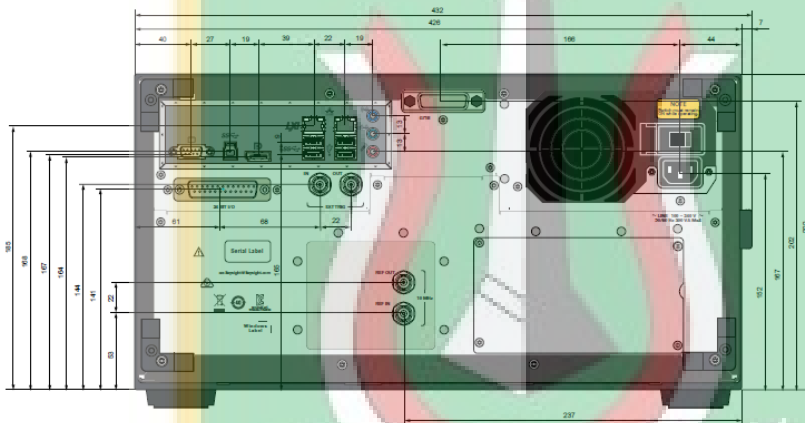
Width	24.4 cm 9.6 in
Depth	27.9 cm 11.0 in
Height	15.9 cm 6.2 in
Weight	1.8 kg 4.0 lb

- **Network Analyzer Keysight E5063A**

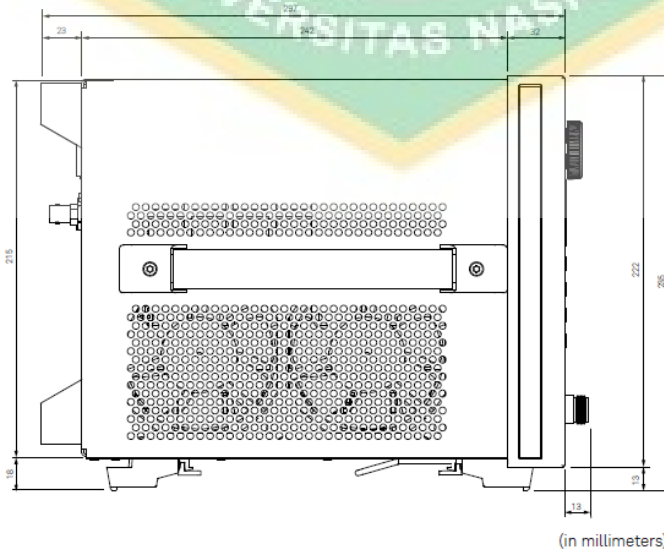
Dimensions (front view)



Dimensions (rear view)



Dimensions (side view)



Description	Specification (dB)							
	100 kHz to 300 kHz	300 kHz to 1 MHz	1 to 100 MHz	100 MHz to 3 GHz	3 to 6 GHz	6 to 10 GHz	10 to 13 GHz	13 to 18 GHz
Directivity	10 dB	10 dB	25 dB	25 dB	20 dB	15dB	10 dB	10 dB
Source match	20 dB	20 dB	25 dB	25 dB	20 dB	15dB	15 dB	15 dB
Load match	7 dB (typ.)	11 dB (typ.)	14 dB	11 dB	10 dB	7dB	8 dB (typ.)	6 dB (typ.)
Reflection tracking	± 3.0 dB	± 3.0 dB	± 1.0 dB	± 1.0 dB	± 1.0 dB	± 1.0 dB	± 1.0 dB	± 1.0 dB
Transmission tracking	± 3.0 dB	± 3.0 dB	± 1.0 dB	± 1.0 dB	± 1.0 dB	± 1.0 dB	± 1.0 dB	± 1.0 dB

## Test Port Output (Source)

### Test port output frequency

Description	Specification	Typical
Frequency range		Frequency can be set from 50 kHz. The performance data from 50 to 100 kHz is typical.
Option 205	100 kHz to 500 MHz	
Option 215	100 kHz to 1.5 GHz	
Option 235	100 kHz to 3 GHz	
Option 245	100 kHz to 4.5 GHz	
Option 265	100 kHz to 6.5 GHz	
Option 285	100 kHz to 8.5 GHz	
Option 2D5	100 kHz to 14 GHz	
Option 2H5	100 kHz to 18 GHz	
Resolution	1 Hz (100 kHz to 6.5 GHz) 2 Hz (6.5 to 13 GHz) 11 Hz (13 to 18 GHz)	
Source stability		± 7 ppm (5 to 40 °C)
CW accuracy	± 7 ppm	

### Test port output power

Description	Specification	Typical
Nominal power (preset power)	-5 dBm	
Range	50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 8.5 GHz 8.5 to 18 GHz	-20 to -5 dBm
Resolution	0.05 dB	
Level accuracy	At 50 MHz, -5 dBm, absolute	± 0.9 dB
(level flatness) <sup>1</sup>	50 kHz to 300 kHz 300 kHz to 1 MHz 1 MHz to 4.34 GHz 4.34 to 8.5 GHz 8.5 to 12 GHz 12 to 18 GHz	± 3.7 dB ± 2.0 dB ± 1.0 dB ± 1.6 dB ± 3.6 dB ± 5.8 dB
Level linearity <sup>2</sup>	-10 to -5 dBm, 50 kHz to 300 kHz -10 to 0 dBm, 300 kHz to 8.5 GHz -10 to -5 dBm, 8.5 to 18 GHz	± 1.6 dB ± 1.6 dB ± 1.8 dB
	-20 to -10 dBm, 50 kHz to 8.5 GHz -15 to -10 dBm, 8.5 to 18 GHz	± 2.7 dB ± 2.9 dB

## Test Port Input

Description	Specification	Typical
Test port input level		
Maximum input level	+6 dBm	
Crosstalk		
50 kHz to 100 kHz		-88 dB
100 kHz to 300 kHz	-88 dB	
300 kHz to 8.5 MHz	-93 dB	
8.5 MHz to 4.34 GHz	-115 dB	
4.34 to 6 GHz	-105 dB	
6 to 13 GHz	-100 dB	
13 to 16 GHz	-90 dB	
16 to 18 GHz	-85 dB	
Test Port Noise Floor (IFBW=1 Hz)		
50 kHz to 100 kHz		-103 dBm
100 kHz to 8.5 MHz	-103 dBm	
8.5 to 100 MHz	-126 dBm	
100 MHz to 4.34 GHz	-127 dBm	
4.34 to 8.5 GHz	-116 dBm	
8.5 to 13 GHz	-115 dBm	
13 to 16 GHz	-105 dBm	
16 to 18 GHz	-102 dBm	
Compression level (at maximum test port input level = +6 dBm)		
Magnitude		
50 kHz to 1 MHz		± 0.2 dB
1 MHz to 4.34 GHz		± 0.2 dB
4.34 to 13 GHz		± 0.2 dB
13 to 18 GHz		± 0.2 dB
Phase		
50 kHz to 1 MHz		± 5 deg.
1 MHz to 4.34 GHz		± 1.5 deg.
4.34 to 13 GHz		± 6 deg.
13 to 18 GHz		± 10 deg.

