

Measurement of complementary cumulative distribution function (CCDF)	NRT-Z43	NRT-Z44
Definition	probability in % of forward power envelope exceeding a given threshold (only with 1 → 2 forward direction)	
Measurement range	0% to 100%	0% to 100%
Threshold level range	0.25 W to 75 W	1 W to 300 W
Reflection measurement ²⁾ (values in {} : 3 to 4 GHz)		
Definition	measurement of load match in terms of SWR, return loss or reflection coefficient	
Reflection measurement range Return loss/SWR/reflection coefficient	0 dB to 23 {20} dB / 1.15 {1.22} to ∞ / 0.07 {0.10} to 1	
Min. forward power	0.007 [0.07] W (specs met from 0.05 [0.5] W)	0.03 [0.3] W (specs met from 0.2 [2] W)

General data	NAP-Z3	NAP-Z4	NAP-Z5	NAP-Z6	NAP-Z7	NAP-Z8
Power measurement range ¹⁾	0.01 W to 35 W	0.03 W to 110 W	0.1 W to 350 W	0.3 W to 1100 W	0.05 W to 200 W	0.5 W to 2000 W
Frequency range	25 MHz to 1 GHz	25 MHz to 1 GHz	25 MHz to 1 GHz	25 MHz to 1 GHz	0.4 MHz to 80 MHz	0.2 MHz to 80 MHz
SWR (referred to 50 Ω)	1.03 max.	1.03 max.	1.03 max.	1.05 max.	1.03 max. (1.02 max. from 1.5 MHz to 30 MHz)	
Insertion loss up to 0.3 GHz	0.10 dB max.	0.08 dB max.	0.08 dB max.	0.05 dB max.	–	–
up to 0.5 GHz	0.25 dB max.	0.15 dB max.	0.15 dB max.	0.10 dB max.	–	–
total frequency range	0.75 dB max.	0.35 dB max.	0.20 dB max.	0.15 dB max.	0.015 dB max.	0.015 dB max.
Directivity	30 dB min. (30 MHz to 1 GHz), 26 dB min. (25 MHz to 30 MHz)				35 dB min. (1.5 MHz to 30 MHz)	

Average power measurement						
Measurement range	0.01 W to 35 W	0.03 W to 110 W	0.1 W to 350 W	0.3 W to 1100 W	0.05 W to 200 W	0.5 W to 2000 W
Measurement uncertainty at 20 to 25°C	6% of reading	6% of reading	6% of reading	6% of reading	6 [4] % of reading (1.5 MHz to 30 MHz) value in brackets: sensor-specific calibration factors taken into account	

Measurement of peak envelope power						
Measurement range	not possible	not possible	not possible	not possible	0.5 W to 200 W	5 W to 2000 W
AM Burst width t Repetition rate 1/T					30 Hz to 10 kHz 20 μs min. 30/s min.	30 Hz to 10 kHz 20 μs min. 30/s min.

Reflection measurement						
Measurement range for return loss/SWR/reflection coefficient	0 dB to 23 dB / 1.15 to ∞ / 0.07 to 1 (30 MHz to 1 GHz)				0 to 28 dB / 1.08 to ∞ / 0.04 to 1 (1.5 to 30 MHz)	
Minimum forward power	0.1 (0.6) W	0.3 (2) W	1 (6) W	3 (20) W	0.5 (10) W	5 (100) W
	specs met with power values in ()					

General data	NAP-Z10 (model 02)	NAP-Z11 (model 02)
Power measurement range ¹⁾	0.005 W to 20 W	0.05 W to 200 W
Frequency range	35 MHz to 1 GHz	35 MHz to 1 GHz
SWR (referred to 50 Ω)	max. 1.03	max. 1.03
Insertion loss up to 0.3 GHz	0.10 dB max.	0.08 dB max.
up to 0.5 GHz	0.25 dB max.	0.15 dB max.
total frequency range	0.75 dB max.	0.20 dB max.
Directivity	30 dB min. from 40 MHz to 1 GHz 26 dB min. from 35 to 40 GHz	

Average power measurement		
Measurement range	0.005 W to 20 W	0.05 W to 200 W
Measurement uncertainty at 20 to 25°C	6.5% of reading	6.5% of reading

Measurement of peak envelope power		
Measurement range	0.05 W to 20 W	0.5 W to 200 W
AM Burst width t Repetition rate 1/T	50 Hz to 100 kHz min. 4.5 μs min. 50/s	50 Hz to 100 kHz min. 4.5 μs min. 50/s

Reflection measurement		
Measurement range Return loss/SWR/ Reflection coefficient	0 dB to 23 dB/1.15 to ∞/0.07 to 1 (40 MHz to 1 GHz)	
Minimum forward power	0.05 (0.35) W	0.5 (3.5) W
	specs met with power values in ()	
Measurement time	equal to measurement time of selected power measurement function, shortest with average power measurement	