



Datasheet

ET920

Dual band Wifi Terminal Antenna

Datasheet v1.1

Specification subject to change without notice



1.0 Specification

1.1 Electrical

Frequency	2400 – 2500MHz 5150 – 5850MHz
Impedance	50 Ohms
Polarization	Linear, Vertical
Gain	4.18 dBi Max @
VSWR	< 2:1

1.2 Connection

Connector	SMA / RP SMA Male
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1.3 Mechanical

Material	ABS
Colour	Black
Dimensions	50mm x 16.8mm

1.3 RF

Frequency	2.4GHz	2.42GHz	2.44GHz	2.46GHz	2.48GHz	2.5GHz
Horizontal + Vertical						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
Rad. Pow. (dBi)	-1.89	-1.61	-1.2	-1.32	-1.01	-0.93
Rad. Pow. 0-90 (dBi)	-5.36	-5.14	-4.72	-4.8	-4.44	-4.27
Rad. Pow. 90-180 (dBi)	-7.17	-6.73	-6.28	-6.38	-6.11	-6.14
Peak EIRP (dBi)	1.01	1.18	1.4	1.18	1.38	1.56
Directivity (dBi)	2.9	2.79	2.6	2.5	2.39	2.49
Efficiency (dB)	-1.89	-1.61	-1.2	-1.32	-1.01	-0.93
Efficiency (%)	64.71	69.02	75.86	73.79	79.25	80.72
Gain (dBi)	1.01	1.18	1.4	1.18	1.38	1.56
NHPRP +/-30 (dBi)	-4.62	-4.38	-3.99	-4.14	-3.83	-3.73
NHPRP +/-45 (dBi)	-3.38	-3.11	-2.71	-2.83	-2.52	-2.42
Maximum H+V Value (dBi)	1.01	1.18	1.4	1.18	1.38	1.56
Maximum H+V @ Theta (deg.)	90	90	90	90	90	60
Maximum H+V @ Phi (deg.)	180	180	180	180	180	150
Minimum H+V Value (dBi)	-5.57	-5.24	-5.16	-5.62	-5.82	-6.04
Minimum H+V @ Theta (deg.)	120	180	180	180	180	180
Minimum H+V @ Phi (deg.)	120	0	0	0	0	30
Horizontal						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
H Rad. Pow. (dBi)	-2.46	-2.19	-1.8	-1.97	-1.65	-1.57
H Rad. Pow. 0-90 (dBi)	-6.07	-5.85	-5.44	-5.58	-5.2	-5.03
H Rad. Pow. 90-180 (dBi)	-7.67	-7.27	-6.83	-6.99	-6.71	-6.7
H Peak EIRP (dBi)	0.55	0.74	1	0.79	1.04	1.28
H Directivity (dBi)	3.01	2.93	2.8	2.76	2.69	2.85
H Efficiency (dB)	-2.46	-2.19	-1.8	-1.97	-1.65	-1.57
H Efficiency (%)	56.75	60.39	66.07	63.53	68.39	69.66
H Gain (dBi)	0.55	0.74	1	0.79	1.04	1.28
H NHPRP +/-30 (dBi)	-5.11	-4.87	-4.51	-4.71	-4.4	-4.3
H NHPRP +/-45 (dBi)	-3.92	-3.65	-3.28	-3.47	-3.15	-3.05
Maximum H Value (dBi)	0.55	0.74	1	0.79	1.04	1.28
Maximum H @ Theta (deg.)	90	90	90	90	90	60
Maximum H @ Phi (deg.)	180	180	180	180	180	150
Minimum H Value (dBi)	-21.69	-21.73	-21.26	-21.61	-22.61	-21.83
Minimum H @ Theta (deg.)	180	180	180	180	180	180
Minimum H @ Phi (deg.)	210	210	210	210	210	210

Frequency	2.4GHz	2.42GHz	2.44GHz	2.46GHz	2.48GHz	2.5GHz
Vertical						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
V Rad. Pow. (dBi)	-10.97	-10.64	-10.12	-9.85	-9.64	-9.61
V Rad. Pow. 0-90 (dBi)	-13.56	-13.38	-12.88	-12.63	-12.38	-12.19
V Rad. Pow. 90-180 (dBi)	-16.78	-16.13	-15.58	-15.23	-15.02	-15.33
V Peak EIRP (dBi)	-4.01	-4.18	-3.92	-3.74	-3.4	-3.23
V Directivity (dBi)	6.96	6.46	6.2	6.11	6.24	6.38
V Efficiency (dB)	-10.97	-10.64	-10.12	-9.85	-9.64	-9.61
V Efficiency (%)	8	8.63	9.73	10.35	10.86	10.94
V Gain (dBi)	-4.01	-4.18	-3.92	-3.74	-3.4	-3.23
V NHPRP +/-30 (dBi)	-14.4	-14.1	-13.49	-13.18	-12.93	-12.77
V NHPRP +/-45 (dBi)	-12.73	-12.42	-11.81	-11.48	-11.22	-11.09
Maximum V Value (dBi)	-4.01	-4.18	-3.92	-3.74	-3.4	-3.23
Maximum V @ Theta (deg.)	0	30	30	0	30	0
Maximum V @ Phi (deg.)	30	210	180	180	0	210
Minimum V Value (dBi)	-28.9	-30.77	-40.45	-28.97	-26.2	-24.12
Minimum V @ Theta (deg.)	90	90	120	120	90	0
Minimum V @ Phi (deg.)	270	270	300	300	270	300

Frequency	5.15GHz	5.2GHz	5.255GHz	5.3GHz	5.35GHz	5.4GHz
Horizontal + Vertical						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
Rad. Pow. (dBi)	-0.46	-0.62	-0.69	-0.63	-0.72	-0.55
Rad. Pow. 0-90 (dBi)	-5.38	-5.57	-5.6	-5.42	-5.52	-5.39
Rad. Pow. 90-180 (dBi)	-4.66	-4.92	-5.1	-5.14	-5.12	-4.73
Peak EIRP (dBi)	5.48	5.25	5.2	4.89	4.55	4.58
Directivity (dBi)	5.94	5.87	5.89	5.52	5.27	5.13
Efficiency (dB)	-0.46	-0.62	-0.69	-0.63	-0.72	-0.55
Efficiency (%)	89.95	86.7	85.31	86.5	84.72	88.1
Gain (dBi)	5.48	5.25	5.2	4.89	4.55	4.58
NHPRP +/-30 (dBi)	-3.22	-3.33	-3.4	-3.36	-3.53	-3.5
NHPRP +/-45 (dBi)	-2.19	-2.32	-2.4	-2.34	-2.46	-2.35
Maximum H+V Value (dBi)	5.48	5.25	5.2	4.89	4.55	4.58
Maximum H+V @ Theta (deg.)	90	90	90	90	90	90
Maximum H+V @ Phi (deg.)	30	30	30	30	30	30
Minimum H+V Value (dBi)	-11.15	-11.43	-12.7	-14.8	-16.15	-16.23
Minimum H+V @ Theta (deg.)	120	30	30	30	0	0
Minimum H+V @ Phi (deg.)	180	90	120	120	180	150
Horizontal						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
H Rad. Pow. (dBi)	-1.17	-1.24	-1.27	-1.18	-1.27	-1.1
H Rad. Pow. 0-90 (dBi)	-5.96	-6.1	-6.11	-5.9	-6.02	-5.9
H Rad. Pow. 90-180 (dBi)	-5.74	-5.88	-5.99	-5.98	-5.9	-5.45
H Peak EIRP (dBi)	5.03	4.93	4.78	4.47	4.32	4.27
H Directivity (dBi)	6.2	6.17	6.05	5.65	5.59	5.37
H Efficiency (dB)	-1.17	-1.24	-1.27	-1.18	-1.27	-1.1
H Efficiency (%)	76.38	75.16	74.64	76.21	74.64	77.62
H Gain (dBi)	5.03	4.93	4.78	4.47	4.32	4.27
H NHPRP +/-30 (dBi)	-3.65	-3.72	-3.78	-3.74	-3.93	-3.91
H NHPRP +/-45 (dBi)	-2.74	-2.81	-2.87	-2.79	-2.91	-2.81
Maximum H Value (dBi)	5.03	4.93	4.78	4.47	4.32	4.27
Maximum H @ Theta (deg.)	90	90	90	90	90	90
Maximum H @ Phi (deg.)	0	0	0	0	0	0
Minimum H Value (dBi)	-39.16	-23.77	-28.98	-27.38	-26.9	-27.6
Minimum H @ Theta (deg.)	180	180	180	60	180	180
Minimum H @ Phi (deg.)	90	90	90	330	90	90

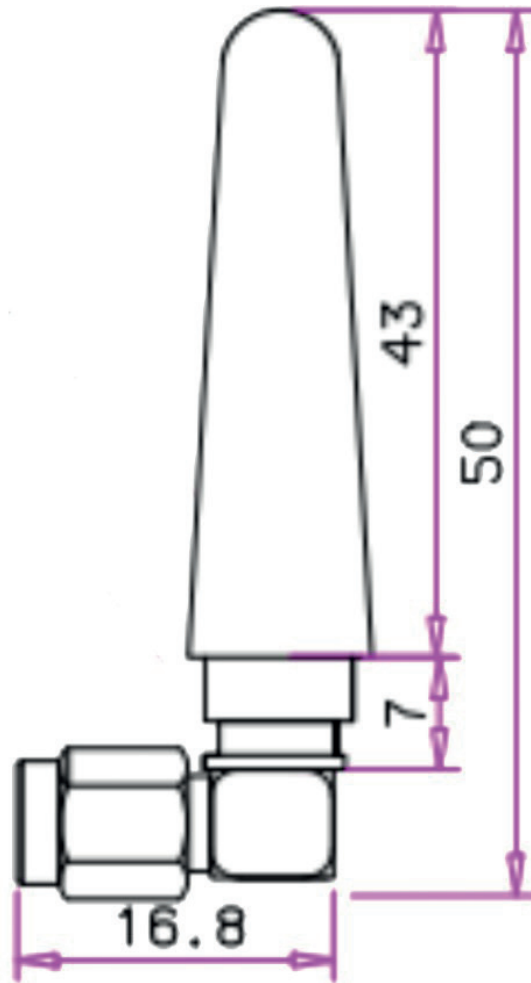
Frequency	5.15GHz	5.2GHz	5.255GHz	5.3GHz	5.35GHz	5.4GHz
Vertical						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
V Rad. Pow. (dBi)	-8.72	-9.35	-9.71	-9.85	-9.96	-9.79
V Rad. Pow. 0-90 (dBi)	-14.37	-14.91	-15.14	-15.25	-15.14	-14.92
V Rad. Pow. 90-180 (dBi)	-11.24	-11.94	-12.46	-12.69	-12.98	-12.89
V Peak EIRP (dBi)	-1.4	-1.95	-2.09	-1.91	-1.9	-1.52
V Directivity (dBi)	7.32	7.4	7.62	7.94	8.06	8.27
V Efficiency (dB)	-8.72	-9.35	-9.71	-9.85	-9.96	-9.79
V Efficiency (%)	13.43	11.61	10.69	10.35	10.09	10.5
V Gain (dBi)	-1.4	-1.95	-2.09	-1.91	-1.9	-1.52
V NHPRP +/-30 (dBi)	-13.45	-13.98	-14.11	-14.13	-14.1	-13.89
V NHPRP +/-45 (dBi)	-11.36	-11.97	-12.28	12.39	12.47	12.29
Maximum V Value (dBi)	-1.4	-1.95	-2.09	-1.91	-1.9	-1.52
Maximum V @ Theta (deg.)	120	120	90	90	90	90
Maximum V @ Phi (deg.)	330	330	60	60	60	60
Minimum V Value (dBi)	-33.53	-32.31	-30	-33.29	-31.24	-35.08
Minimum V @ Theta (deg.)	180	180	180	180	180	180
Minimum V @ Phi (deg.)	0	0	0	0	0	0

Frequency	5.45GHz	5.5GHz	5.55GHz	5.6GHz	5.65GHz	5.7GHz
Horizontal + Vertical						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
Rad. Pow. (dBi)	-0.9	-1.39	-1.36	-1.14	-1.42	-1.84
Rad. Pow. 0-90 (dBi)	-5.88	-6.45	-6.49	-6.38	-6.92	-7.65
Rad. Pow. 90-180 (dBi)	-4.8	-5.1	-4.91	-4.53	-4.53	-4.7
Peak EIRP (dBi)	4.05	3.58	3.47	3.71	3.24	2.55
Directivity (dBi)	4.95	4.97	4.83	4.85	4.66	4.39
Efficiency (dB)	-0.9	-1.39	-1.36	-1.14	-1.42	-1.84
Efficiency (%)	81.28	72.61	73.11	76.91	72.11	65.46
Gain (dBi)	4.05	3.58	3.47	3.71	3.24	2.55
NHPRP +/-30 (dBi)	-4.05	-4.72	-4.82	-4.68	-5.14	-5.71
NHPRP +/-45 (dBi)	-2.82	-3.42	-3.45	-3.27	-3.65	-4.15
Maximum H+V Value (dBi)	4.05	3.58	3.47	3.71	3.24	2.55
Maximum H+V @ Theta (deg.)	150	150	150	150	150	150
Maximum H+V @ Phi (deg.)	330	330	330	330	330	330
Minimum H+V Value (dBi)	-16.05	-14.7	-13.49	-13.17	-12.84	-13.55
Minimum H+V @ Theta (deg.)	0	0	180	180	180	60
Minimum H+V @ Phi (deg.)	240	210	90	90	60	150
Horizontal						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
H Rad. Pow. (dBi)	-1.48	-1.98	-1.96	-1.75	-2.03	-2.52
H Rad. Pow. 0-90 (dBi)	-6.45	-7.06	-7.16	-7.11	-7.71	-8.59
H Rad. Pow. 90-180 (dBi)	-5.49	-5.74	-5.52	-5.1	-5.06	-5.23
H Peak EIRP (dBi)	3.56	2.89	3.05	2.98	2.72	2.19
H Directivity (dBi)	5.04	4.87	5.01	4.73	4.75	4.71
H Efficiency (dB)	-1.48	-1.98	-1.96	-1.75	-2.03	-2.52
H Efficiency (%)	71.12	63.39	63.68	66.83	62.66	55.98
H Gain (dBi)	3.56	2.89	3.05	2.98	2.72	2.19
H NHPRP +/-30 (dBi)	-4.51	-5.22	-5.35	-5.22	-5.72	-6.43
H NHPRP +/-45 (dBi)	-3.32	-3.95	-4.01	-3.83	-4.23	-4.83
Maximum H Value (dBi)	3.56	2.89	3.05	2.98	2.72	2.19
Maximum H @ Theta (deg.)	90	150	150	150	150	150
Maximum H @ Phi (deg.)	0	0	0	0	0	0
Minimum H Value (dBi)	-22.29	-22.46	-23.3	-30.34	-25.92	-21.09
Minimum H @ Theta (deg.)	180	30	30	30	30	180
Minimum H @ Phi (deg.)	90	90	90	90	90	90

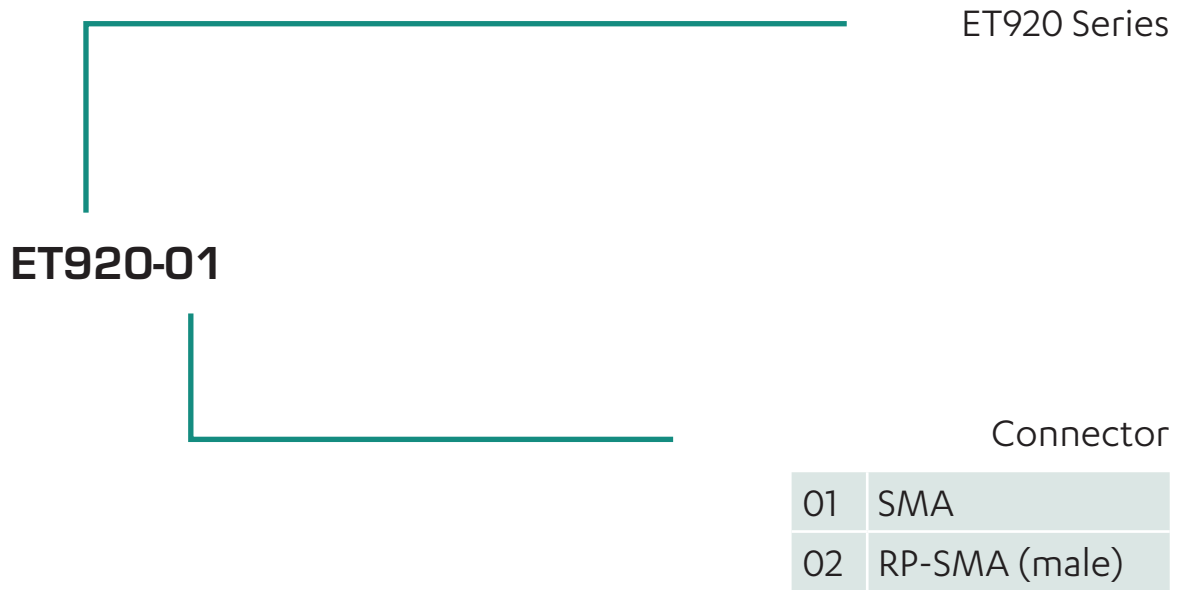
Frequency	5.45GHz	5.5GHz	5.55GHz	5.6GHz	5.65GHz	5.7GHz
Vertical						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
V Rad. Pow. (dBi)	-9.92	-10.38	-10.24	-9.96	-10.19	-10.21
V Rad. Pow. 0-90 (dBi)	-14.97	-15.27	-14.95	-14.48	-14.69	-14.74
V Rad. Pow. 90-180 (dBi)	-13.12	-13.74	-13.75	-13.64	-13.91	-14.09
V Peak EIRP (dBi)	-1.75	-2.41	-2.57	-2.74	-3.02	-3.66
V Directivity (dBi)	8.17	7.97	7.67	7.22	7.17	6.55
V Efficiency (dB)	-9.92	-10.38	-10.24	-9.96	-10.19	-10.21
V Efficiency (%)	10.19	9.16	9.46	10.09	9.57	9.53
V Gain (dBi)	-1.75	-2.41	-2.57	-2.74	-3.02	-3.66
V NHPRP +/-30 (dBi)	-13.98	-14.36	-14.22	-13.94	-14.15	-13.91
V NHPRP +/-45 (dBi)	-12.44	-12.82	-12.66	-12.41	-12.68	-12.55
Maximum V Value (dBi)	-1.75	-2.41	-2.57	-2.74	-3.02	-3.66
Maximum V @ Theta (deg.)	90	90	90	90	150	150
Maximum V @ Phi (deg.)	60	60	60	60	330	330
Minimum V Value (dBi)	-30.99	-40.69	-46.17	-27.28	-29.57	-27.82
Minimum V @ Theta (deg.)	120	30	90	30	30	30
Minimum V @ Phi (deg.)	90	270	270	270	270	120

Frequency	5.725GHz	5.75GHz	5.775GHz	5.8GHz	5.825GHz	5.85GHz
Horizontal + Vertical						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
Rad. Pow. (dBi)	-1.64	-1.7	-1.92	-1.95	-1.68	-1.76
Rad. Pow. 0-90 (dBi)	-5.33	-5.45	-5.68	-5.74	-5.56	-5.6
Rad. Pow. 90-180 (dBi)	-6.15	-6.16	-6.36	-6.38	-5.99	-6.17
Peak EIRP (dBi)	4.06	3.94	3.5	3.05	3.44	3.78
Directivity (dBi)	4.7	4.64	4.42	4	4.12	4.54
Efficiency (dB)	-1.64	-1.7	-1.92	-1.95	-1.68	-1.76
Efficiency (%)	68.55	67.61	64.27	63.83	67.92	66.68
Gain (dBi)	3.06	2.94	2.5	2.05	2.44	2.78
NHPRP +/-30 (dBi)	-5.15	-5.23	-5.42	-5.46	-5.24	-5.25
NHPRP +/-45 (dBi)	-3.6	-3.68	-3.89	-3.94	-3.7	-3.76
Maximum H+V Value (dBi)	3.06	2.94	2.5	2.05	2.44	2.78
Maximum H+V @ Theta (deg.)	90	90	90	90	90	90
Maximum H+V @ Phi (deg.)	330	330	330	330	330	330
Minimum H+V Value (dBi)	-18.18	-23.22	-26.21	-22.53	-19.72	-17.33
Minimum H+V @ Theta (deg.)	0	0	0	0	0	60
Minimum H+V @ Phi (deg.)	60	60	60	60	60	150
Horizontal						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
H Rad. Pow. (dBi)	-3.09	-3.11	-3.33	-3.36	-3.04	-3.07
H Rad. Pow. 0-90 (dBi)	-6.92	-7	-7.25	-7.3	-7.08	-7.07
H Rad. Pow. 90-180 (dBi)	-7.61	-7.56	-7.77	-7.79	-7.33	-7.45
H Peak EIRP (dBi)	3.06	2.93	2.47	2.02	2.41	2.74
H Directivity (dBi)	6.15	6.04	5.8	5.38	5.45	5.81
H Efficiency (dB)	-3.09	-3.11	-3.33	-3.36	-3.04	-3.07
H Efficiency (%)	49.09	48.87	46.45	46.13	49.66	49.32
H Gain (dBi)	3.06	2.93	2.47	2.02	2.41	2.74
H NHPRP +/-30 (dBi)	-6.2	-6.25	-6.44	-6.47	-6.25	-6.22
H NHPRP +/-45 (dBi)	-4.83	-4.87	-5.07	-5.12	-4.86	-4.86
Maximum H Value (dBi)	3.06	2.93	2.47	2.02	2.41	2.74
Maximum H @ Theta (deg.)	90	90	90	90	90	90
Maximum H @ Phi (deg.)	330	330	330	330	330	330
Minimum H Value (dBi)	-42.6	-34.46	-35.91	-36.11	-28.92	-21.77
Minimum H @ Theta (deg.)	180	180	0	30	60	60
Minimum H @ Phi (deg.)	240	240	60	0	150	150

Frequency	5.45GHz	5.5GHz	5.55GHz	5.6GHz	5.65GHz	5.7GHz
Vertical						
Ant. Port Inp. Pow. (dBi)	0	0	0	0	0	0
V Rad. Pow. (dBi)	-7.11	-7.29	-7.49	-7.51	-7.38	-7.6
V Rad. Pow. 0-90 (dBi)	-10.46	-10.67	-10.88	-10.93	-10.87	-11.04
V Rad. Pow. 90-180 (dBi)	-11.6	-11.77	-11.93	-11.95	-11.75	-12.09
V Peak EIRP (dBi)	1.66	1.54	1.44	1.25	1.2	1
V Directivity (dBi)	8.77	8.83	8.93	8.76	8.58	8.6
V Efficiency (dB)	-7.11	-7.29	-7.49	-7.51	-7.38	-7.6
V Efficiency (%)	19.45	18.66	17.82	17.74	18.28	17.38
V Gain (dBi)	1.66	1.54	1.44	1.25	1.2	1
V NHPRP +/-30 (dBi)	-11.81	-12.01	-12.22	-12.25	-12.05	-12.21
V NHPRP +/-45 (dBi)	-9.67	-9.89	-10.12	-10.18	-10.03	-10.27
Maximum V Value (dBi)	1.66	1.54	1.44	1.25	1.2	1
Maximum V @ Theta (deg.)	30	30	30	30	30	30
Maximum V @ Phi (deg.)	90	90	90	90	90	90
Minimum V Value (dBi)	-32.49	-31.86	-26.71	-27.18	-29.72	-32.46
Minimum V @ Theta (deg.)	180	180	0	0	0	0
Minimum V @ Phi (deg.)	60	60	60	0	330	330



Dimensions in mm





Revision History

- 1.0 - Initial Release
23rd September 2019
- 1.1 - xGen Rebrand

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