COMBINATION ANTENNA

GL7001A01 5G/LTE/Wi-Fi/GPS MIMO Antenna

MODEL GL7001A01

Modular multi-system antenna with separate cellular, Wi-Fi and GPS specifications and SMA plug connections.



KEY PERFORMANCE

690–960 / 1710–2690 / 3300–3800 / 4200–5000 MHz
CELLULAR BANDS

2400–2500 / 5150–5850 MHz
WI-FI BANDS

1560 / 1575.42 / 1602 MHz
GPS FREQUENCIES

TECHNICAL SPECIFICATIONS

5G / LTE	
Frequency bands	690–960 / 1710–2690 / 3300–3800 / 4200–5000 MHz
VSWR bands	700–960 / 1710–2690 / 3300–3800 / 4200–5000 MHz
VSWR limits by band	≤3.0 / ≤2.0 / ≤2.0 / ≤2.0
Peak gain by band	0.5 ±0.5 dBi / 2.0 dBi / 3.0 dBi / 2.0 dBi
Nominal impedance	50 Ω
Polarization	Vertical
Connector	SMA plug
Material	PCB + coaxial cable
Cable	RG174, black
Operating temperature	−40 to +80°C
Storage temperature	−40 to +85°C
Antenna color	Black

NOTES

Cellular frequency starts at 690 MHz; VSWR and gain conditions for the lowest band start at 700 MHz. Wi-Fi peak gain is listed as 2.0 without a unit in the source table. Measured test results are distinct from nominal specifications.

WI-FI, GPS & MECHANICAL SPECIFICATIONS

WI-FI	
Frequency bands	2400–2500 / 5150–5850 MHz
VSWR	≤2.0 per band
Peak gain	2.0 (unit not stated in source table)
Nominal impedance	50 Ω
Polarization	Linear
Connector	SMA plug
Material	PCB + coaxial cable
Cable	RG174
Operating temperature	−40 to +80°C
Storage temperature	−40 to +85°C
Antenna color	Black
GPS CERAMIC PATCH / LNA	
Ceramic patch frequency	1560 / 1575.42 / 1602 MHz
Ceramic patch impedance / VSWR	50 Ω nominal / ≤2.0
Ceramic patch polarization	RHCP
Connector	SMA plug
Ceramic patch zenith gain	3 dBi
LNA frequency	1560 / 1575.42 / 1602 MHz
LNA impedance / VSWR	50 Ω nominal / ≤2.0
LNA gain at 2.8 V	28 ±2 dB typical
DC power input	2.5–5.5 V
Cable	RG174 low-loss, black
Operating temperature	−40 to +80°C
Storage temperature	−40 to +85°C
MECHANICAL / PACKING	
Design	Modular baseboard with reserved positions; switchable 5–9-in-1 design
Packing	50 pcs/PE bag; 1000 pcs/carton; adjusted to actual order quantity

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DISCUSS YOUR REQUIREMENTS
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Request a quote

Measured Gain & Efficiency

Measured sample results. These do not replace the nominal specification limits.

Cellular port 1

Source test table, page 11

Frequency	Efficiency %	Gain dBi
700MHz	26.92	0.13
960MHz	28.31	0.34
1.71GHz	35.71	2.15
2.69GHz	39.08	2.37
3.3GHz	40.60	3.15
3.8GHz	42.06	3.40
4.2GHz	33.61	2.71
5GHz	34.28	2.83

Cellular port 2

Source test table, page 19

Frequency	Efficiency %	Gain dBi
700MHz	26.60	1.67
960MHz	22.99	1.22
1.71GHz	47.05	3.33
2.69GHz	47.52	3.22
3.3GHz	46.46	3.14
3.8GHz	55.56	3.89
4.2GHz	43.67	2.84
5GHz	42.46	2.79

Cellular port 3

Source test table, page 27

Frequency	Efficiency %	Gain dBi
690MHz	25.14	0.58
960MHz	26.43	0.64
1.71GHz	37.84	2.51
2.7GHz	33.81	2.04
3.3GHz	38.42	2.53
3.8GHz	37.53	2.47
4.2GHz	42.16	2.69
5GHz	43.87	2.73

Cellular port 4

Source test table, page 37

Frequency	Efficiency %	Gain dBi
700MHz	60.42	2.76
960MHz	53.25	0.58
1.71GHz	38.19	-0.09
2.7GHz	42.80	3.34
3.3GHz	27.83	0.96
3.8GHz	22.15	1.29
4.2GHz	24.08	1.63
5GHz	18.98	1.12

Measured Gain & Efficiency

Measured sample results. These do not replace the nominal specification limits.

Wi-Fi port 1

Source test table, page 47

Frequency	Efficiency %	Gain dBi
2.4GHz	33.41	2.27
2.45GHz	34.09	2.01
2.5GHz	38.51	2.48
5.15GHz	46.54	4.72
5.55GHz	43.71	3.94
5.85GHz	42.27	3.17

Wi-Fi port 2

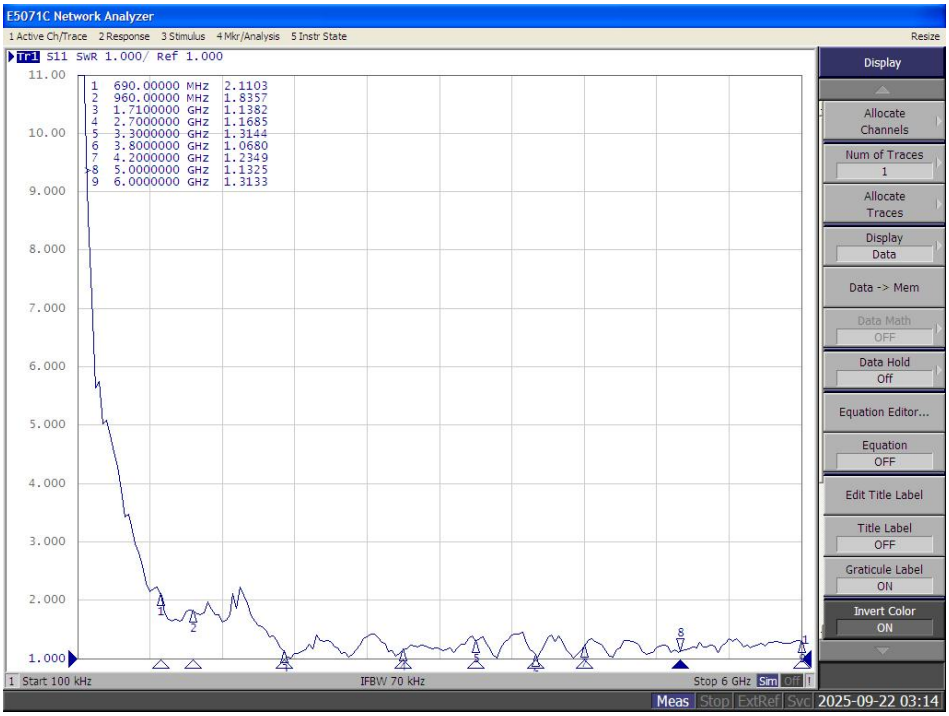
Source test table, page 53

Frequency	Efficiency %	Gain dBi
2.4GHz	34.21	2.53
2.45GHz	36.38	2.64
2.5GHz	32.14	2.21
5.15GHz	43.71	3.36
5.55GHz	46.34	3.67
5.85GHz	45.28	3.52

Reference Test Figures

Measured sample results. These do not replace the nominal specification limits.

Cellular port 1: source network-analyzer trace



GPS: source radiation-pattern reference

