

T9-G5-C

Product Description

T9-G5-C is a rugged combination antenna of GNSS and telecom 5G/LTE bands, which features excellent GPS GLONASS signal quality and cellular 3G/4G/5G coverage. With anti UV weather-resistance material and water ingress design, the combo antenna is easy to install and able to meet commercial and industrial standards.

Highlight

- ✓ Central screw mount, easy installation
- ✓ Zinc alloy die casting antenna base.
- ✓ IPX7 Waterproof
- ✓ Support GPS/GLONASS, LTE/5G
- ✓ RF independent grounded
- ✓ Apply weather resistance antenna enclosure material for harsh environment.
- ✓ Proprietary designed excellent GNSS signal reception quality and RF isolation.

Applications

- ✓ Navigation and data communication
- ✓ Vending machine
- ✓ Vehicle tracking & Fleet management
- ✓ Machine to machine, SCARDA
- ✓ IoT Gateway, routers

T9-G5-C 5G/LTE + GNSS Industrial Combo Antenna



Mechanical Specification

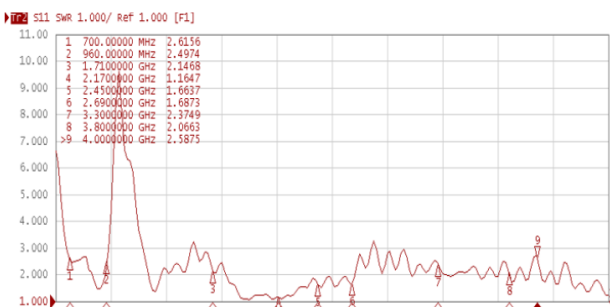
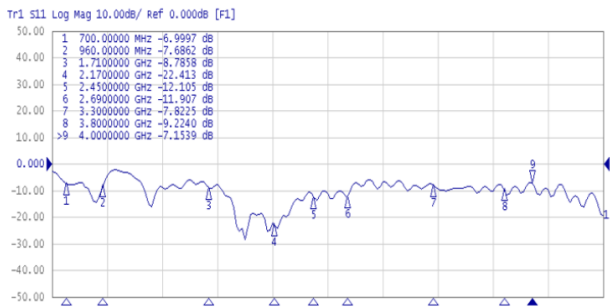
Dimension	48 (dia.) x 82mm(H)
Mounting	Through hole with 3M tape
Cable	RG-174 and RG-178
Connector	SMA plug x 2 - Standard
Enclosure Material	ABS
Operating Temperature	-35°C to 85°C
Storage Temperature	-40°C to 85°C

Mechanical Specification

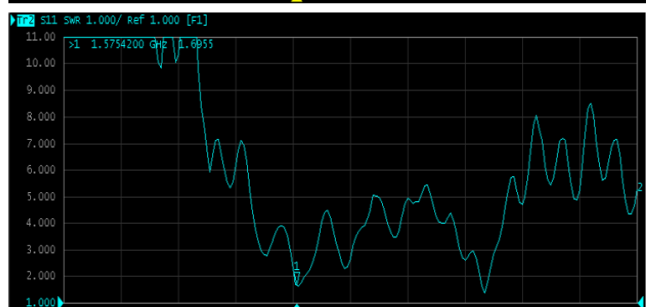
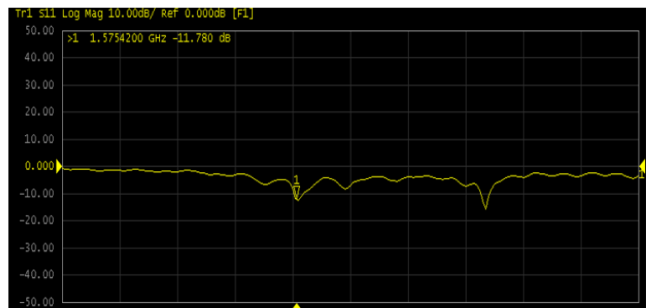
Frequency	698 ~ 960MHz 1,710 ~ 2,690MHz 3,300 ~ 4,000MHz 1575 & 1602MHz (Passive Antenna Element)
Gain (Peak)	698 ~ 960MHz : 1.53 dBi 1,710 ~ 2,690MHz : 1.88 dBi 3,300 ~ 4,000MHz : 1.95 dBi 1575 & 1602MHz: 1.68 dBi
Efficiency (Peak)	698 ~ 960MHz : 55.78 % 1,710 ~ 2,690MHz : 55.42 % 3,300 ~ 4,000MHz : 55.72 % 1575 & 1602MHz: 45.48 %
VSWR	< 2.6:1
Impedance	50Ω
Polarization	Omni-Directional

VSWR & Return Loss

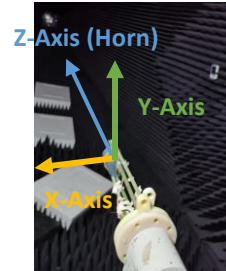
5G RL & VSWR



GPS RL & VSWR



Antenna Measurement & Setup in Anechoic Chamber



Frequency	Efficiency	Gain	Frequency	Efficiency	Gain
5G Low Band			910	51.52%	0.84
698	32.92%	-0.81	920	50.43%	0.96
710	36.14%	-0.75	930	45.92%	1.21
720	36.35%	-0.75	940	42.55%	0.56
730	38.97%	-0.26	950	39.12%	-0.08
740	40.28%	0.22	960	34.44%	-0.65
750	42.06%	0.12			
760	43.42%	0.16	5G Middle Band		
770	44.47%	0.73	1700	45.56%	1.74
780	49.85%	1.30	1720	46.47%	1.67
790	50.97%	1.53	1740	49.47%	1.66
800	47.08%	0.61	1760	48.01%	1.73
810	48.29%	0.96	1780	50.11%	1.88
820	48.98%	1.06	1800	49.56%	1.58
830	49.88%	1.37	1820	51.95%	1.13
840	51.20%	0.88	1840	52.56%	1.34
850	52.15%	0.97	1860	53.69%	1.74
860	55.78%	1.05	1880	54.67%	1.40
870	53.97%	0.94	1900	54.88%	1.62
880	54.94%	0.86	1920	53.14%	1.45
890	54.74%	0.80	1940	54.96%	1.61
900	53.11%	0.88	1960	52.79%	1.59

Antenna Measurement & Setup in Anechoic Chamber

Frequency	Efficiency	Gain	Frequency	Efficiency	Gain
1980	53.06%	1.49	2520	53.24%	0.56
2000	52.59%	1.41	2540	51.84%	0.41
2020	51.22%	1.19	2560	52.50%	1.42
2040	54.16%	1.88	2580	54.46%	1.57
2060	53.02%	1.78	2600	53.03%	1.65
2080	52.46%	1.81	2620	52.23%	1.68
2100	53.43%	1.97	2640	54.17%	1.49
2120	54.30%	1.67	2660	53.73%	1.00
2140	53.16%	1.51	2680	54.84%	0.99
2160	51.60%	1.69	2700	50.79%	0.25
2180	51.29%	1.83			
2200	52.23%	1.83	5G High Band		
2220	53.99%	1.78	3300	53.71%	1.58
2240	55.42%	1.64	3320	53.22%	1.57
2260	55.31%	1.90	3340	54.51%	1.16
2280	54.07%	1.80	3360	53.68%	1.03
2300	54.04%	1.77	3380	55.72%	1.15
2320	54.10%	1.73	3400	55.51%	1.08
2340	54.93%	1.61	3420	55.67%	1.14
2360	54.64%	1.30	3440	53.48%	1.49
2380	53.96%	1.10	3460	53.99%	1.62
2400	53.09%	1.08	3480	53.33%	1.63
2420	51.94%	0.89	3500	53.17%	1.41
2440	51.38%	0.89	3520	53.38%	1.11
2460	50.56%	0.77	3540	52.70%	1.08
2480	50.53%	0.68	3560	52.63%	1.30
2500	54.61%	0.67	3580	52.75%	1.30

Antenna Measurement & Setup in Anechoic Chamber

Frequency	Efficiency	Gain	Frequency	Efficiency	Gain
3600	52.99%	1.38	GNSS		
3620	52.95%	1.41	1560	43.81%	1.25
3640	52.10%	1.25	1565	43.15%	1.36
3660	51.59%	1.15	1570	43.57%	1.55
3680	49.01%	1.02	1575	45.48%	1.68
3700	48.66%	1.38	1580	46.00%	1.93
3720	45.15%	1.71	1585	44.45%	1.55
3740	45.94%	1.84	1600	39.51%	0.63
3760	47.55%	1.80	1605	37.19%	0.72
3780	48.92%	1.54	1610	37.05%	0.55
3800	46.42%	1.28			

Antenna Dimension Reference Drawing

