

## Product Description

5G-P1H covers all cellular frequencies in 700-3000 MHz spectrum with excellent performance efficiency: higher than 50%. The ground plane independent antenna is designed for Cellular, 2.4GHz Wi-Fi, NB-IoT and ISM wireless applications and can be easily installed externally outside the device by double-side adhesive sticker. Installed inside the enclosure is optional. Customized design service is welcome to discuss

## Highlight

- ✓ Wideband covering 5G bands and LTE
- ✓ High radiation efficiency
- ✓ With heat shrink tube
- ✓ Suitable for embedded systems
- ✓ Ground Plane Independent
- ✓ Thin and small-size
- ✓ RoHS Compliant
- ✓ Heat shrink covered if put out outside the device.

## 5G-P1H

### Multiband 5G Antenna: Industrial Cellular 5G NR / C-Band & LTE Bands FR4 Wideband Antenna



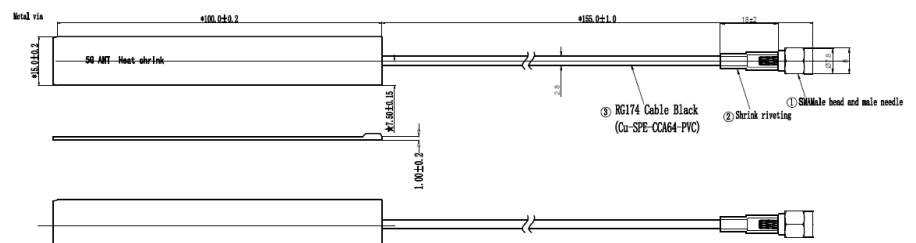
### Electrical Specifications

<b>Frequency</b>	698 ~ 960MHz 1710 ~ 2690MHz 3300 ~ 3800MHz 3700 ~ 4000MHz (C-Band)
<b>Gain (Peak)</b>	1.29 dBi @ 698 ~ 960MHz 3.50 dBi @ 1710 ~ 2690MHz 4.0 dBi @ 3300 ~ 3800MHz 2.26 dBi @ 3700 ~ 4000MHz
<b>Efficiency (Peak)</b>	50.95% @ 698 ~ 960MHz 69.10% @ 1710 ~ 2690MHz 54.84% @ 3300 ~ 3800MHz 50.09% @ 3700 ~ 4000MHz
<b>VSWR</b>	<3.8 @ 698 ~ 960MHz <2.53 @ 1710 ~ 2690MHz <2.49 @ 3300 ~ 3800MHz <3.06 @ 3700 ~ 4000MHz
<b>Polarization</b>	Vertical
<b>Impedance</b>	50Ω

### Mechanical Specifications

<b>Dimension</b>	100.0(L) x 15.0(W) mm
<b>Connector</b>	SMA or Other RF Connectors
<b>Cable</b>	RG-174, LMR-100 or other RF cables upon request
<b>Mounting</b>	3M Double-side adhesive
<b>Operation Temperature</b>	-30° ~ +70°C
<b>Storage Temperature</b>	-30° ~ +75°C
<b>RoHS</b>	Compliant

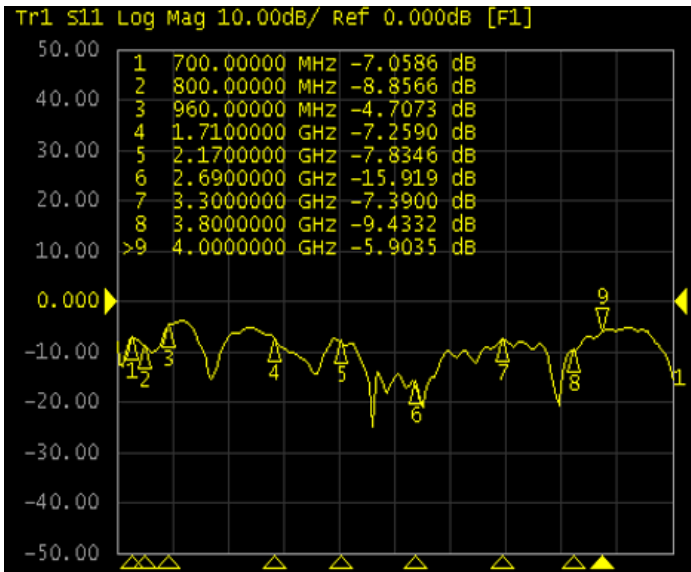
### Internal Antenna Drawing:



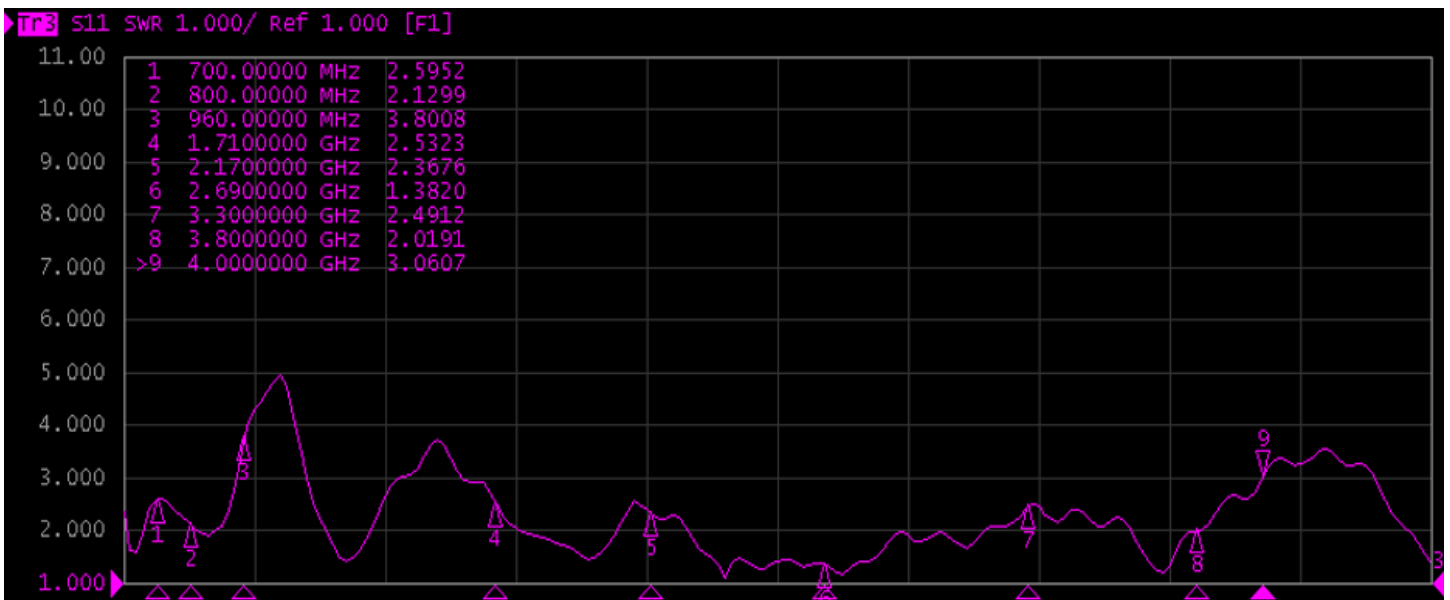


### VSWR & Return Loss

#### Return Loss Curve

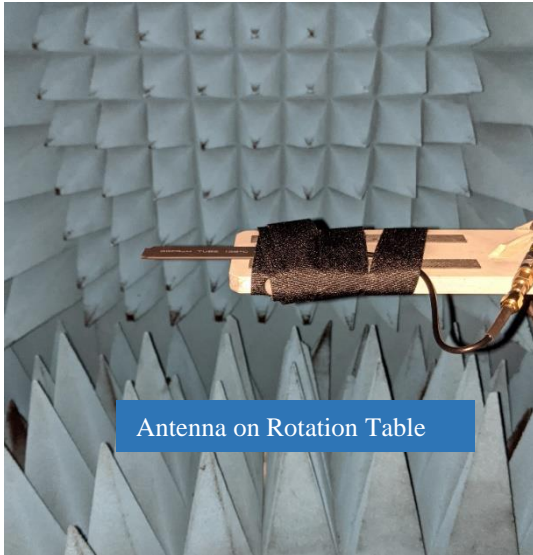


#### VSWR Curve

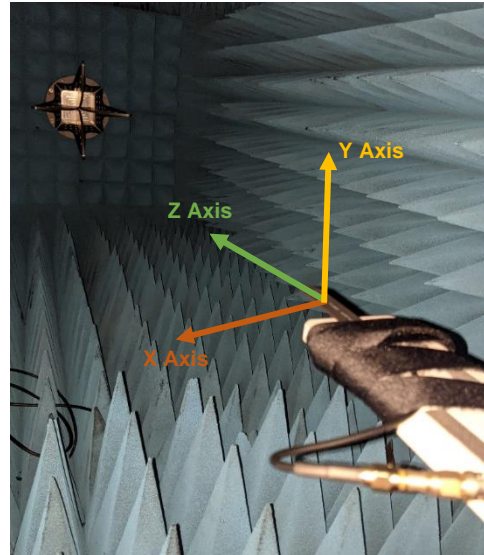




### Antenna Testing & Setup in Anechoic Chamber



Antenna on Rotation Table



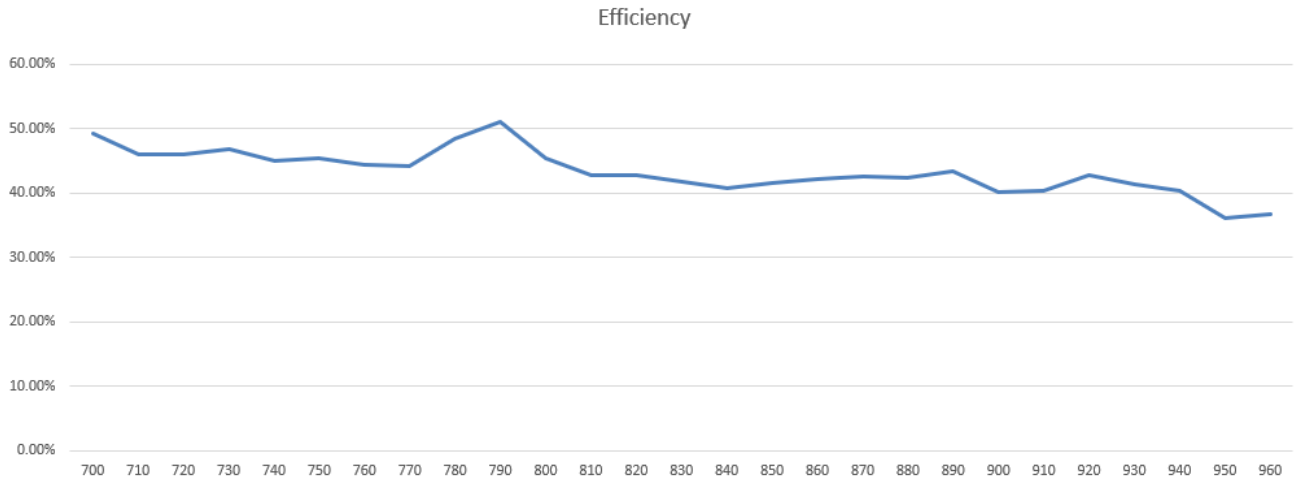
#### - Antenna Efficiency Chart

Frequency	Efficiency	Gain	Frequency	Efficiency	Gain	Frequency	Efficiency	Gain	Frequency	Efficiency	Gain
700	49.12%	0.61	1700	49.09%	1.12	2340	63.24%	3.39	3480	48.32%	3.20
710	46.05%	0.57	1720	48.05%	1.06	2360	63.52%	3.38	3500	48.48%	3.09
720	45.98%	0.05	1740	46.91%	1.16	2380	63.85%	3.47	3520	48.34%	3.09
730	46.87%	0.07	1760	46.69%	1.11	2400	62.37%	3.28	3540	48.65%	2.94
740	45.06%	0.31	1780	47.47%	1.18	2420	60.37%	3.13	3560	49.45%	2.79
750	45.40%	0.30	1800	48.47%	1.24	2440	54.65%	2.33	3580	48.09%	2.81
760	44.28%	0.03	1820	48.44%	1.24	2460	43.98%	1.36	3600	48.39%	2.68
770	44.23%	0.76	1840	49.12%	1.27	2480	42.95%	1.01	3620	50.23%	2.62
780	48.49%	1.18	1860	51.03%	1.39	2500	44.72%	1.15	3640	50.73%	2.50
790	50.95%	1.39	1880	54.44%	1.63	2520	50.50%	2.28	3660	52.08%	2.25
800	45.47%	0.40	1900	58.26%	1.93	2540	51.38%	2.77	3680	52.88%	2.04
810	42.66%	0.47	1920	62.11%	2.23	2560	56.73%	2.96	3700	53.99%	2.26
820	42.70%	0.54	1940	65.87%	2.58	2580	59.85%	2.94	3720	54.54%	1.97
830	41.71%	0.44	1960	68.41%	2.86	2600	62.05%	2.96	3740	53.55%	1.52
840	40.74%	0.34	1980	69.10%	3.13	2620	62.83%	3.10	3760	51.52%	1.04
850	41.52%	0.10	2000	66.72%	3.39	2640	63.11%	3.10	3780	49.17%	0.72
860	42.06%	0.05	2020	63.60%	3.50	2660	64.95%	3.30	3800	46.94%	0.81
870	42.51%	0.27	2040	60.16%	3.48	2680	66.51%	3.64	3820	45.83%	0.82
880	42.28%	0.36	2060	57.99%	3.46	2700	68.01%	3.78	3840	48.63%	0.94
890	43.33%	0.39	2080	56.92%	3.37	3300	53.46%	4.16	3860	47.49%	1.02
900	40.03%	0.46	2100	57.38%	3.41	3320	54.84%	4.10	3880	48.74%	0.81
910	40.29%	0.40	2120	58.66%	3.42	3340	54.18%	4.02	3900	49.03%	0.99
920	42.76%	0.29	2140	58.17%	3.33	3360	53.57%	4.13	3920	49.09%	0.87
930	41.42%	0.20	2160	57.97%	3.27	3380	53.76%	4.04	3940	48.36%	0.68
940	40.36%	0.09	2180	58.01%	3.19	3400	50.35%	4.00	3960	46.06%	0.79
950	36.09%	0.03	2200	58.32%	3.06	3420	50.53%	3.72	3980	43.75%	0.90
960	36.73%	0.11	2300	59.72%	3.06	3440	48.79%	3.60	4000	43.72%	1.20
			2320	62.39%	3.26	3460	49.31%	3.37	4020	44.55%	1.41



### Antenna Efficiency Curve

- 700 ~ 960MHz



- 1700 ~ 4020MHz

