

YIC



GPS/GLONASS & 4G LTE & WiFi External Antenna ATGGLTEW80014M-CD

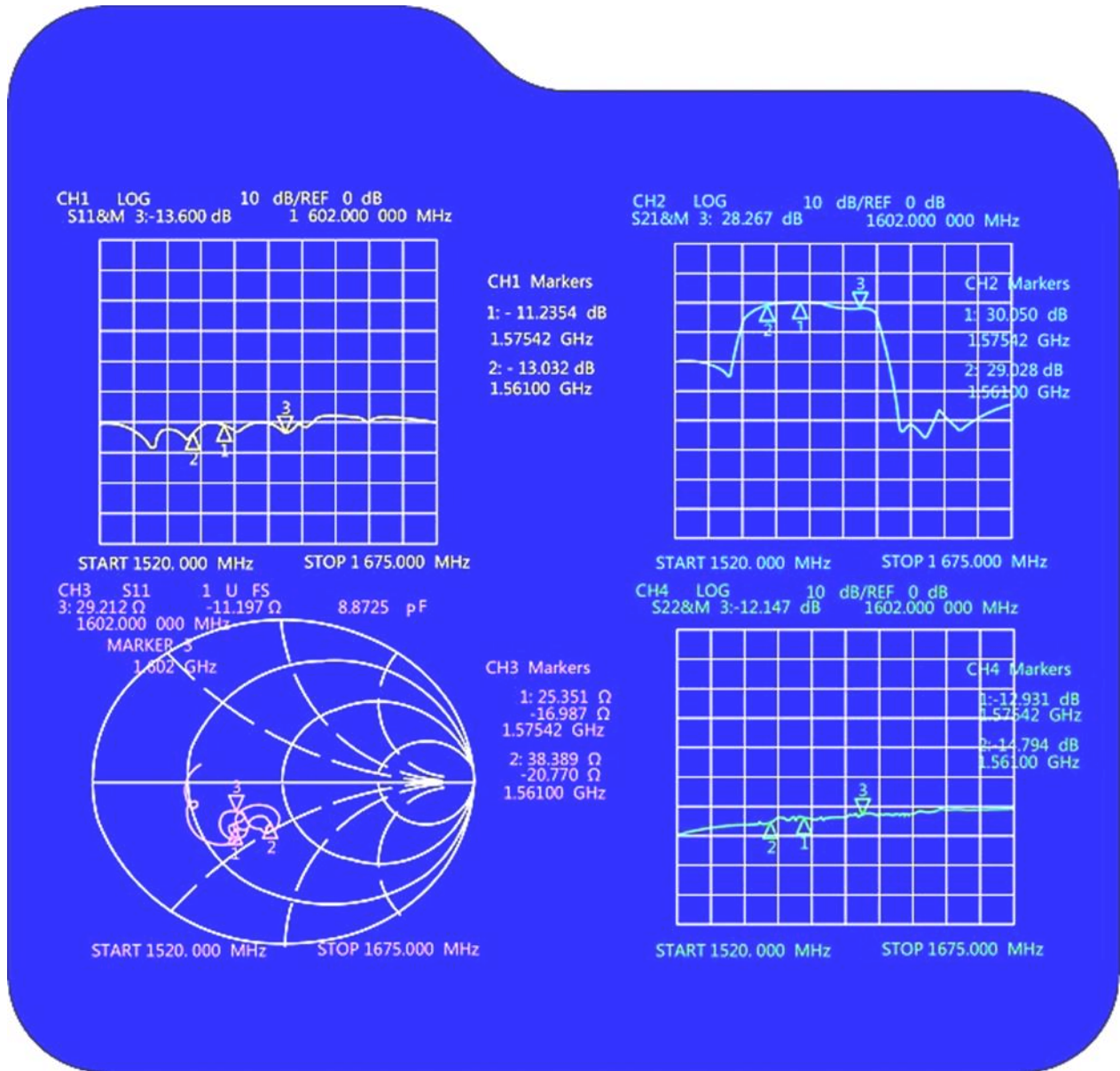
Datasheet

1. Specification

Item		Specifications	
GPS/GLONASS Antenna	Dielectric Antenna	Center Frequency	1575.42MHz & 1602MHz
		Band Width	40MHz typ.
		Polarization	RHCP
		Gain	3dB
		V.S.R.W	1.8
		Impedence	50Ω
	LNA	Gain	18±2dB
		Noise Figure	<1.5
		V.S.R.W	<1.8
		Supply Voltage	3.0 Typ.
Current Consumption		6mA	
LTE Antenna	Frequency Range	700~960MHz & 1710~2710MHz	
	V.S.R.W	<1.8	
	Polarization	Linear	
	Gain	8dBi	
	Impedence	50Ω	

Item		Specifications
Wi-Fi	Frequency Range	2400~2500MHz
	V.S.R.W	<1.8
	Gain	5dBi
	Impedence	50Ω
Mechanical	Cable	RG174,3m
	Connector	GNSS: FAKRA-C Blue Wi-Fi: FAKRA-E Green 4G: FAKRA-D Magenta
	Material	ABS
	Dimensions	80x14±1mm
	Mounting	Magnetic
Environmental	Operating Temperature	-40°C~+85°C
	Relative Humidity	Up to 95%~100%
	Vibration	10 to 55Hz

2. LNA & S22 Return Loss

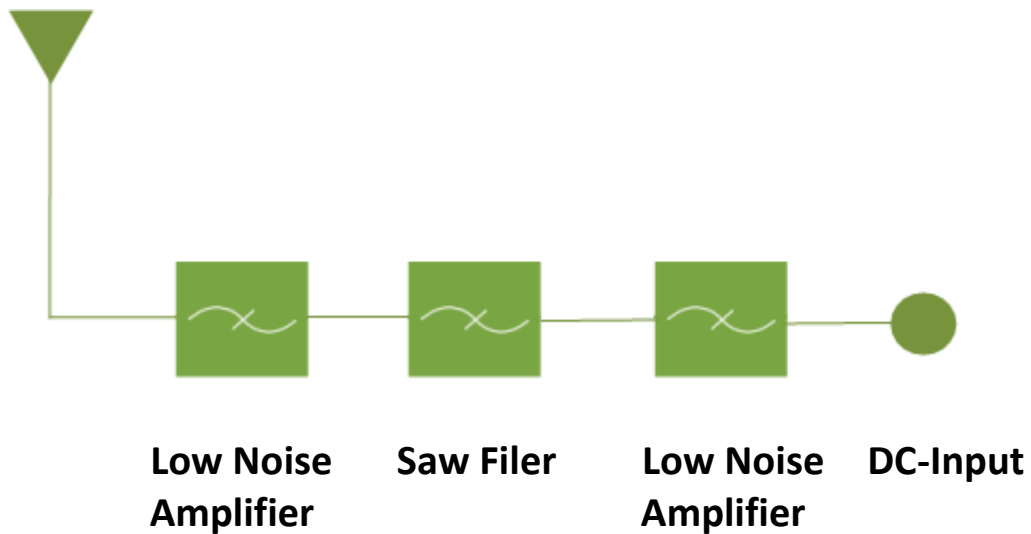


*all measurements were conducted with 0.5m RG174 cable

*Formula = Patch Antenna Average Gain + LNA typical gain-RG174 cable loss

@1.2dB per meter = Gain at connector

3. Circuit Diagram



4. Antenna Field Trial Results



5. V.S.W.R for 4G LTE

Table 5-1

Frequency Band (MHz)	700	960	1710	2960
V.S.W.R	1.52	1.67	1.54	1.18

Table 5-2

Frequency Band (MHz)	700	960	1710	2690
Typical Value	≤2.0	≤2.0	≤2.0	≤2.0
Measuring Method	1. A 50Ω coaxial cable is connected to the Antenna. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm			

6. Efficiency and Gain

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
700	13.67	-3.56
820	12.33	-2.75
960	13.85	-3.27
1710	12.23	-1.92
2170	18.89	0.52
2690	13.56	-1.66

7. V.S.W.R for WIFI

Table 7-1

Frequency Band (MHz)	2400	2500		
V.S.W.R	1.17	1.05		

Table 7-2

Frequency Band (MHz)	2400	2500		
Typical Value	≤2.0	≤2.0		
Measuring Method	1. A 50Ω coaxial cable is connected to the Antenna. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm			

8. Efficiency and Gain

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	13.83	0.56
2450	13.23	-0.84
2500	15.17	-0.71

9. Drawing

