YSAN028XX (XX: AA to EA)

YSAN028XX (XX: FA to JA)

RF Cable Datasheet

Product OC: YSAN028XX
Version: 2.2
Date: 2026-01-05
Status: Released

Product Name: DC–6GHz RP SMA Female to IPEX 4L Cable
Key Features:
Frequency Band: DC–6000 MHz
Cable Length: 100 mm (AA), 150 mm (BA), 200 mm (CA), 250 mm (DA), 300 mm (EA),100 mm (FA), 150 mm (GA), 200 mm (HA), 250 mm (IA), 300 mm (JA)
Connector Type: RP SMA Female to IPEX 4L
RoHS Compliant

Overview

To meet the requirements of devices for RF connection among antennas, modules, and motherboards, as well as long-distance wiring, Quectel provides customers with a wide range of RF cable products. These cables use high-quality materials and connectors to reduce the loss to the greatest extent, ensuring overall RF performance. Quectel also provides customized services according to customers' particular requirements for cable material, cable length, and connector type.

Contents

1 Specification

1.1. Electrical

Electrical		
Frequency Range		DC–6000 MHz
Impedance		50 Ω
VSWR	**YSAN028AA**	≤ 1.79
	YSAN028BA	≤ 2.17
	YSAN028CA	≤ 1.72
	YSAN028DA	≤ 1.93
	YSAN028EA	≤ 1.93
	YSAN028FA	≤ 1.79
	YSAN028GA	≤ 2.17
	YSAN028HA	≤ 1.72
	YSAN028IA	≤ 1.93
	YSAN028JA	≤ 1.93
Return Loss	**YSAN028AA**	≤ -10.95 dB
	YSAN028BA	≤ -8.66 dB
	YSAN028CA	≤ -11.52 dB
	YSAN028DA	≤ -9.97 dB
	YSAN028EA	≤ -9.99 dB
	YSAN028FA	≤ -10.95 dB
	YSAN028GA	≤ -8.66 dB

	YSAN028HA	≤ -11.52 dB
	YSAN028IA	≤ -9.97 dB
	YSAN028JA	≤ -9.99 dB
Max Cable Loss	**YSAN028AA**	-1.48 dB
	YSAN028BA	-1.68 dB
	YSAN028CA	-2.08 dB
	YSAN028DA	-2.57dB
	YSAN028EA	-2.88 dB
	YSAN028FA	-1.48 dB
	YSAN028GA	-1.68 dB
	YSAN028HA	-2.08 dB
	YSAN028IA	-2.57dB
	YSAN028JA	-2.88 dB
Screening Effectiveness		0.5–1 GHz: ≥ -50 dB 1–3 GHz: ≥ -60 dB 3–6 GHz: ≥ -65 dB

Electrical – Detail

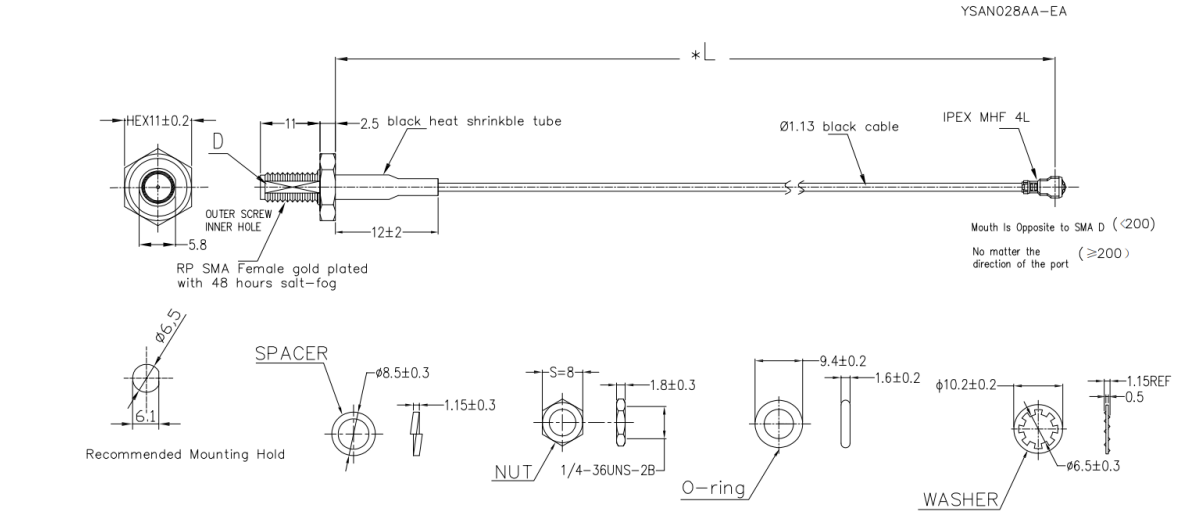
SPEC	Band	B87 /B88	B31 /B72 /B73	B71	B12 /B13 /B28	B5 /B8 /B26	n74 /n75 /n76	B1 /B2 /B3	B40	Wi-Fi 2G	B38 /B41	B42 /B48 /n77	n79	Wi-Fi 5G
		410–430	450–470	600–700	700–810	820–960	1420–1520	1700–2170	2300–2400	2400–2500	2500–2690	3300–4200	4400–5000	5150–5850
Max S11 VSWR	YSAN028AA	1.10	1.10	1.10	1.08	1.05	1.21	1.18	1.30	1.32	1.32	1.45	1.60	1.60
	YSAN028BA	1.08	1.07	1.06	1.12	1.16	1.19	1.23	1.30	1.30	1.26	1.57	1.72	1.74
	YSAN028CA	1.03	1.02	1.12	1.13	1.12	1.10	1.26	1.32	1.25	1.27	1.45	1.54	1.59
	YSAN028DA	1.06	1.08	1.11	1.07	1.16	1.19	1.22	1.22	1.09	1.28	1.49	1.64	1.66
	YSAN028EA	1.09	1.10	1.05	1.13	1.13	1.20	1.23	1.18	1.22	1.29	1.45	1.58	1.59
	YSAN028FA	1.10	1.10	1.10	1.08	1.05	1.21	1.18	1.30	1.32	1.32	1.45	1.60	1.60
	YSAN028GA	1.08	1.07	1.06	1.12	1.16	1.19	1.23	1.30	1.30	1.26	1.57	1.72	1.74
	YSAN028HA	1.03	1.02	1.12	1.13	1.12	1.10	1.26	1.32	1.25	1.27	1.45	1.54	1.59
	YSAN028IA	1.06	1.08	1.11	1.07	1.16	1.19	1.22	1.22	1.09	1.28	1.49	1.64	1.66
	YSAN028JA	1.09	1.10	1.05	1.13	1.13	1.20	1.23	1.18	1.22	1.29	1.45	1.58	1.59
Max S22 VSWR	YSAN028FA	1.07	1.07	1.09	1.09	1.08	1.23	1.19	1.30	1.31	1.31	1.38	1.56	1.79
	YSAN028GA	1.07	1.07	1.06	1.10	1.16	1.20	1.27	1.30	1.30	1.24	1.42	1.65	2.17
	YSAN028HA	1.04	1.04	1.11	1.12	1.12	1.15	1.28	1.33	1.28	1.27	1.44	1.61	1.72
	YSAN028IA	1.05	1.07	1.10	1.09	1.14	1.20	1.24	1.22	1.11	1.26	1.41	1.66	1.93
	YSAN028JA	1.07	1.07	1.07	1.11	1.13	1.22	1.25	1.19	1.22	1.28	1.39	1.68	1.93
Max S11 Return Loss (dB)	YSAN028AA	-26.16	-26.26	-26.84	-28.58	-32.72	-20.37	-21.87	-17.63	-17.21	-17.19	-14.66	-12.73	-12.71
	YSAN028BA	-28.41	-29.62	-30.19	-24.81	-22.48	-21.16	-19.59	-17.71	-17.71	-18.89	-13.11	-11.53	-11.37
	YSAN028CA	-35.40	-38.69	-24.69	-24.38	-25.25	-26.18	-18.73	-17.17	-19.02	-18.47	-14.64	-13.39	-12.85
	YSAN028DA	-31.30	-28.35	-25.40	-29.83	-22.86	-21.37	-19.91	-20.03	-27.01	-18.22	-14.17	-12.28	-12.11
	YSAN028EA	-27.42	-26.56	-31.71	-24.36	-24.28	-20.69	-19.77	-21.72	-20.00	-18.08	-14.69	-12.94	-12.85
	YSAN028FA	-26.16	-26.26	-26.84	-28.58	-32.72	-20.37	-21.87	-17.63	-17.21	-17.19	-14.66	-12.73	-12.71
	YSAN028GA	-28.41	-29.62	-30.19	-24.81	-22.48	-21.16	-19.59	-17.71	-17.71	-18.89	-13.11	-11.53	-11.37

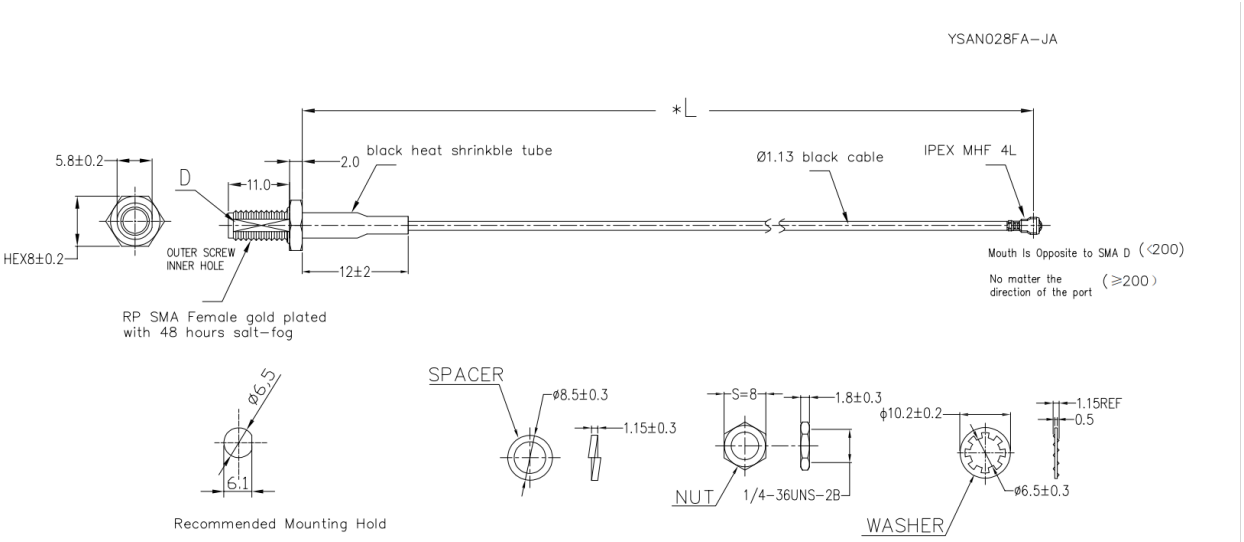
	YSAN028HA	-35.40	-38.69	-24.69	-24.38	-25.25	-26.18	-18.73	-17.17	-19.02	-18.47	-14.64	-13.39	-12.85
	YSAN028IA	-31.30	-28.35	-25.40	-29.83	-22.86	-21.37	-19.91	-20.03	-27.01	-18.22	-14.17	-12.28	-12.11
	YSAN028JA	-27.42	-26.56	-31.71	-24.36	-24.28	-20.69	-19.77	-21.72	-20.00	-18.08	-14.69	-12.94	-12.85
Max S22 Return Loss (dB)	**YSAN028AA**	-29.59	-28.89	-27.20	-27.44	-28.24	-19.79	-21.17	-17.80	-17.50	-17.54	-15.95	-13.25	-10.95
	YSAN028BA	-29.81	-29.39	-30.07	-26.36	-22.47	-20.91	-18.46	-17.61	-17.67	-19.47	-15.18	-12.17	-8.66
	YSAN028CA	-33.81	-33.37	-25.99	-24.75	-24.67	-23.26	-18.29	-16.96	-18.24	-18.54	-14.80	-12.59	-11.52
	YSAN028DA	-31.54	-29.83	-26.68	-27.64	-23.67	-20.84	-19.46	-19.94	-25.90	-18.93	-15.33	-12.08	-9.97
	YSAN028EA	-30.02	-28.86	-29.40	-25.80	-24.58	-20.13	-19.20	-21.18	-20.13	-18.26	-15.77	-11.95	-9.99
	YSAN028FA	-29.59	-28.89	-27.20	-27.44	-28.24	-19.79	-21.17	-17.80	-17.50	-17.54	-15.95	-13.25	-10.95
	YSAN028GA	-29.81	-29.39	-30.07	-26.36	-22.47	-20.91	-18.46	-17.61	-17.67	-19.47	-15.18	-12.17	-8.66
	YSAN028HA	-33.81	-33.37	-25.99	-24.75	-24.67	-23.26	-18.29	-16.96	-18.24	-18.54	-14.80	-12.59	-11.52
	YSAN028IA	-31.54	-29.83	-26.68	-27.64	-23.67	-20.84	-19.46	-19.94	-25.90	-18.93	-15.33	-12.08	-9.97
	YSAN028JA	-30.02	-28.86	-29.40	-25.80	-24.58	-20.13	-19.20	-21.18	-20.13	-18.26	-15.77	-11.95	-9.99
Max Cable Loss S21 (dB)	**YSAN028AA**	-0.19	-0.21	-0.26	-0.28	-0.31	-0.47	-0.54	-0.60	-0.65	-0.62	-0.98	-1.38	-1.48
	YSAN028BA	-0.30	-0.32	-0.41	-0.44	-0.48	-0.62	-0.83	-0.90	-0.85	-0.95	-1.45	-1.65	-1.68
	YSAN028CA	-0.27	-0.29	-0.36	-0.39	-0.44	-0.58	-0.72	-0.81	-0.83	-0.77	-1.56	-1.82	-2.08
	YSAN028DA	-0.36	-0.38	-0.48	-0.52	-0.58	-0.79	-0.97	-1.01	-1.02	-1.13	-1.81	-2.25	-2.57
	YSAN028EA	-0.43	-0.45	-0.57	-0.62	-0.68	-0.95	-1.14	-1.15	-1.26	-1.28	-2.04	-2.35	-2.88
	YSAN028FA	-0.19	-0.21	-0.26	-0.28	-0.31	-0.47	-0.54	-0.60	-0.65	-0.62	-0.98	-1.38	-1.48
	YSAN028GA	-0.30	-0.32	-0.41	-0.44	-0.48	-0.62	-0.83	-0.90	-0.85	-0.95	-1.45	-1.65	-1.68
	YSAN028HA	-0.27	-0.29	-0.36	-0.39	-0.44	-0.58	-0.72	-0.81	-0.83	-0.77	-1.56	-1.82	-2.08
	YSAN028IA	-0.36	-0.38	-0.48	-0.52	-0.58	-0.79	-0.97	-1.01	-1.02	-1.13	-1.81	-2.25	-2.57
	YSAN028JA	-0.43	-0.45	-0.57	-0.62	-0.68	-0.95	-1.14	-1.15	-1.26	-1.28	-2.04	-2.35	-2.88

1.2. Mechanical & Environmental

Mechanical		
OC	*** Length (mm)**	**Weight (g)**
YSAN028AA	100 ±3	4.35
YSAN028BA	150 ±5	4.51
YSAN028CA	200 ±5	4.66
YSAN028DA	250 ±5	4.83
YSAN028EA	300 ±5	4.98
YSAN028FA	100 ±3	3.55
YSAN028GA	150 ±5	3.74
YSAN028HA	200 ±5	3.86
YSAN028IA	250 ±5	4.02
YSAN028JA	300 ±5	4.21
Cable Type & Color	Φ1.13 & Black	
Item	**Material**	**Diameter (mm)**
Inner Conductor	Silver plated copper wire	0.24
Insulator	FEP	0.7
Outer Conductor	Tinned copper wire	0.92
Jacket	FEP	1.13
Connector Type	RP SMA Female to IPEX 4L	
Environmental		
Operation Temperature	-40 °C to +80 °C	
Storage Temperature	-40 °C to +80 °C	
RoHS Compliant	Yes	

2 Drawing

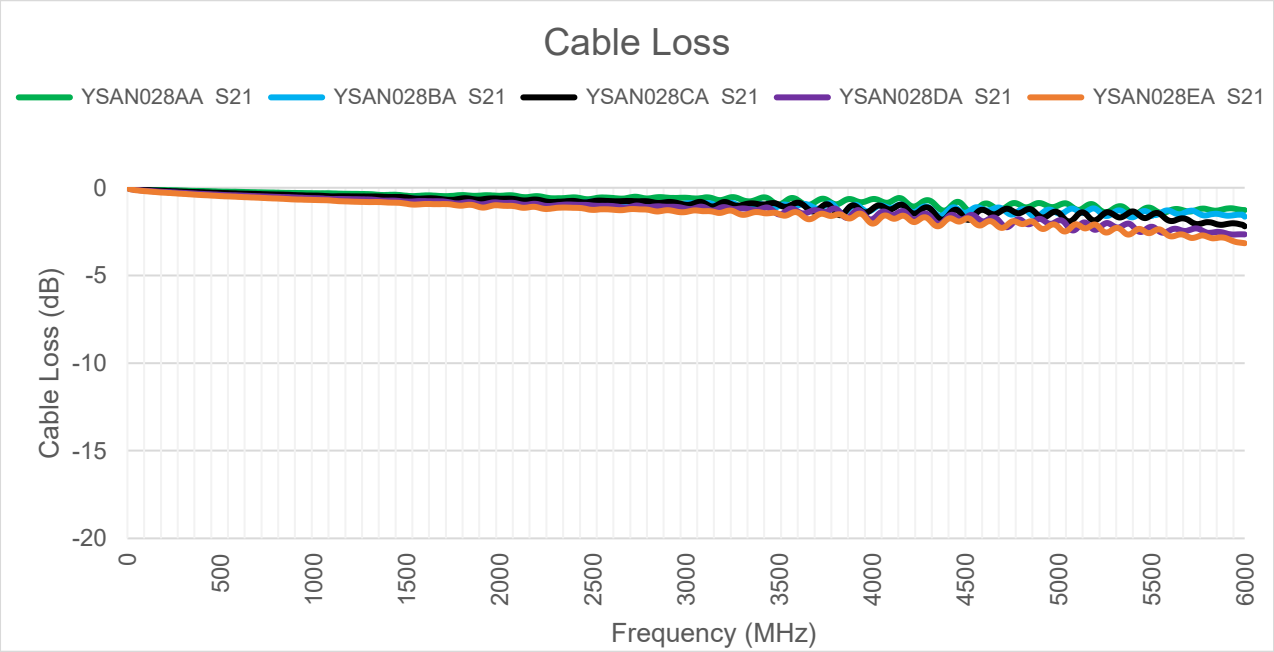


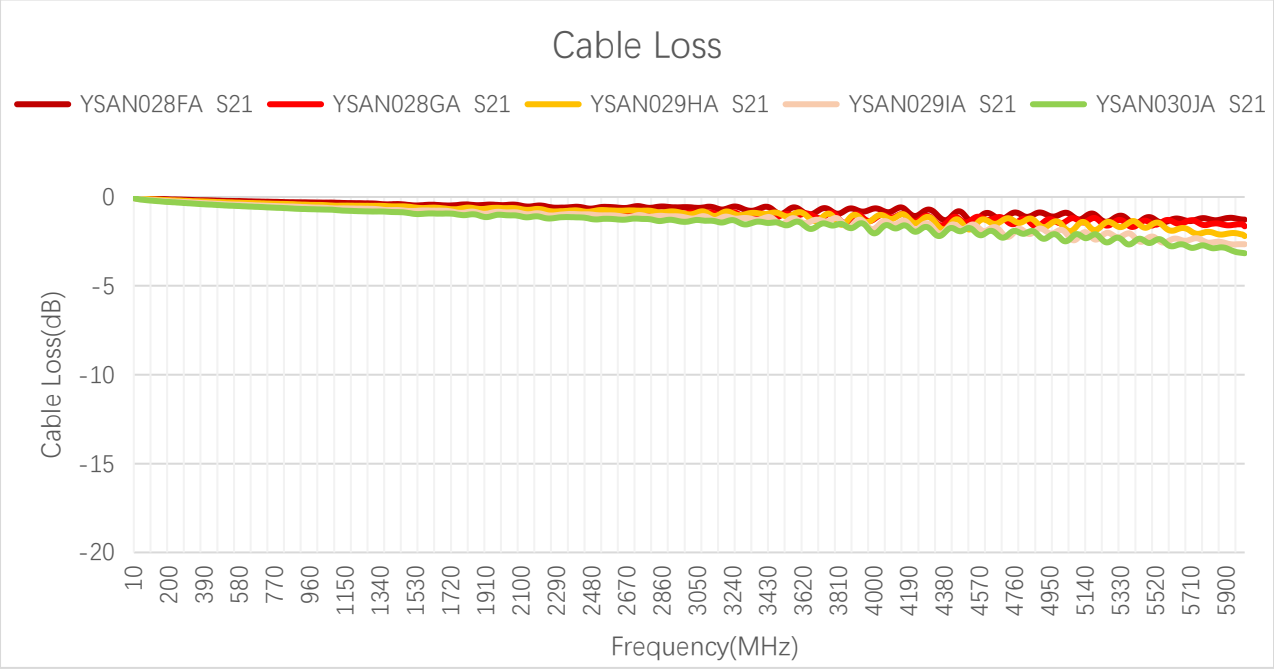


RP-SMA CONNECTOR
(Inner MALE PIN)

3 Detailed Performance

3.1. Cable Loss





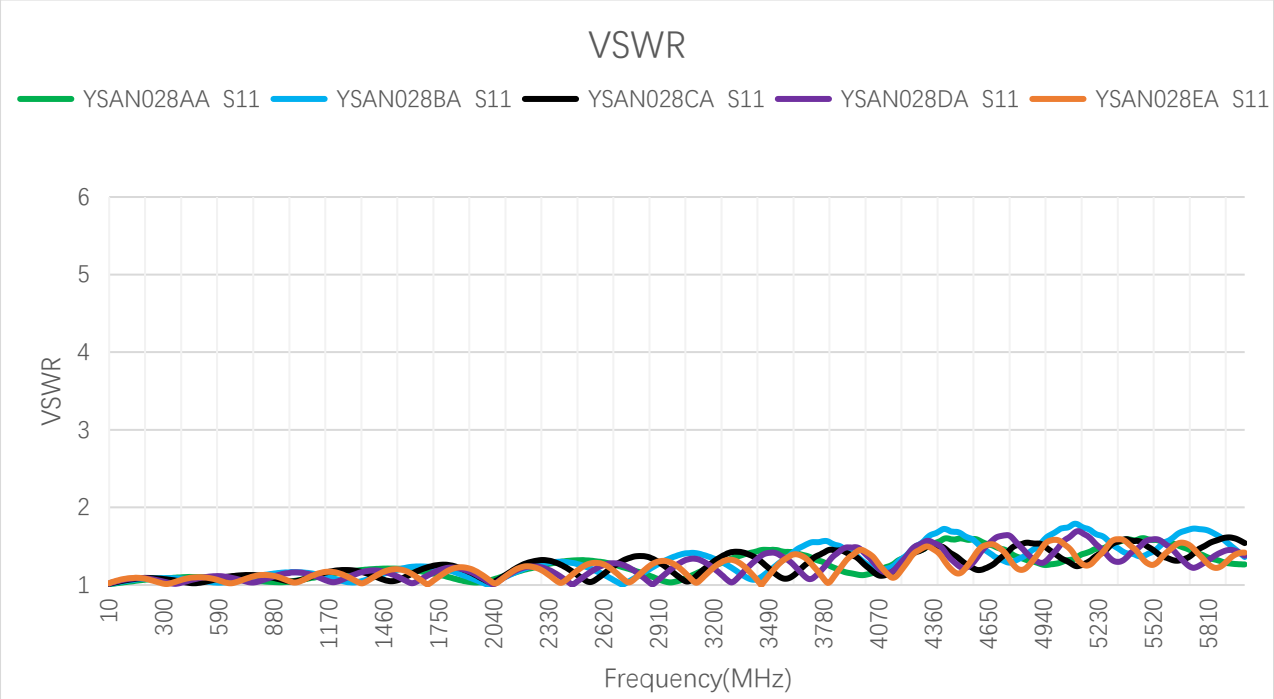
Cable Loss (dB)

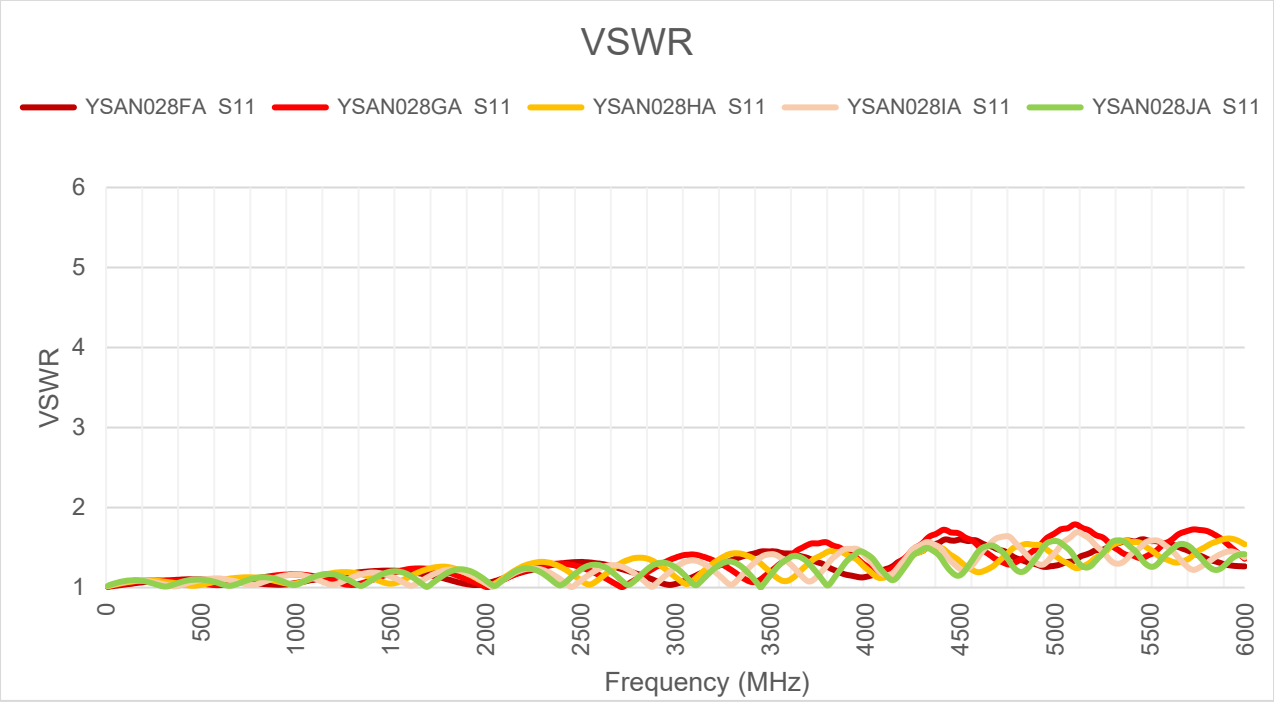
Frequency (MHz)	100	300	410	420	460	470	600	630	710	830
YSAN028AA	-0.09	-0.16	-0.19	-0.19	-0.20	-0.21	-0.23	-0.24	-0.26	-0.29
YSAN028BA	-0.12	-0.22	-0.26	-0.27	-0.29	-0.28	-0.33	-0.34	-0.36	-0.39
YSAN028CA	-0.14	-0.25	-0.29	-0.30	-0.32	-0.32	-0.37	-0.38	-0.41	-0.45
YSAN028DA	-0.17	-0.30	-0.36	-0.36	-0.38	-0.38	-0.44	-0.45	-0.48	-0.53
YSAN028EA	-0.20	-0.35	-0.42	-0.43	-0.45	-0.45	-0.52	-0.54	-0.57	-0.63
YSAN028FA	-0.09	-0.16	-0.19	-0.19	-0.20	-0.21	-0.23	-0.24	-0.26	-0.29
YSAN028GA	-0.12	-0.22	-0.26	-0.27	-0.29	-0.28	-0.33	-0.34	-0.36	-0.39
YSAN028HA	-0.14	-0.25	-0.29	-0.30	-0.32	-0.32	-0.37	-0.38	-0.41	-0.45
YSAN028IA	-0.17	-0.30	-0.36	-0.36	-0.38	-0.38	-0.44	-0.45	-0.48	-0.53
YSAN028JA	-0.20	-0.35	-0.42	-0.43	-0.45	-0.45	-0.52	-0.54	-0.57	-0.63
Frequency (MHz)	**900**	**960**	**1440**	**1710**	**1740**	**1880**	**1950**	**2140**	**2350**	**2450**
YSAN028AA	-0.30	-0.31	-0.40	-0.48	-0.46	-0.46	-0.43	-0.54	-0.59	-0.63
YSAN028BA	-0.42	-0.44	-0.52	-0.68	-0.69	-0.68	-0.61	-0.72	-0.78	-0.83
YSAN028CA	-0.47	-0.48	-0.61	-0.72	-0.77	-0.79	-0.69	-0.83	-0.84	-0.85
YSAN028DA	-0.55	-0.58	-0.74	-0.80	-0.85	-0.92	-0.86	-0.97	-0.96	-0.98
YSAN028EA	-0.67	-0.68	-0.85	-0.93	-0.96	-1.07	-1.05	-1.14	-1.13	-1.18
YSAN028FA	-0.30	-0.31	-0.40	-0.48	-0.46	-0.46	-0.43	-0.54	-0.59	-0.63
YSAN028GA	-0.42	-0.44	-0.52	-0.68	-0.69	-0.68	-0.61	-0.72	-0.78	-0.83
YSAN028HA	-0.47	-0.48	-0.61	-0.72	-0.77	-0.79	-0.69	-0.83	-0.84	-0.85
YSAN028IA	-0.55	-0.58	-0.74	-0.80	-0.85	-0.92	-0.86	-0.97	-0.96	-0.98
YSAN028JA	-0.67	-0.68	-0.85	-0.93	-0.96	-1.07	-1.05	-1.14	-1.13	-1.18

Frequency (MHz)	2600	3600	4700	5000	5500	6000				
YSAN028AA	-0.58	-0.70	-1.21	-1.00	-1.17	-1.27				
YSAN028BA	-0.76	-0.85	-1.28	-1.42	-1.55	-1.65				
YSAN028CA	-0.83	-1.01	-1.21	-1.47	-1.61	-2.20				
YSAN028DA	-1.04	-1.35	-2.12	-1.87	-2.23	-2.66				
YSAN028EA	-1.25	-1.41	-2.29	-2.25	-2.55	-3.17				
YSAN028FA	-0.58	-0.70	-1.21	-1.00	-1.17	-1.27				
YSAN028GA	-0.76	-0.85	-1.28	-1.42	-1.55	-1.65				
YSAN028HA	-0.83	-1.01	-1.21	-1.47	-1.61	-2.20				
YSAN028IA	-1.04	-1.35	-2.12	-1.87	-2.23	-2.66				
YSAN028JA	-1.25	-1.41	-2.29	-2.25	-2.55	-3.17				

3.2. VSWR

3.2.1. VSWR – S11



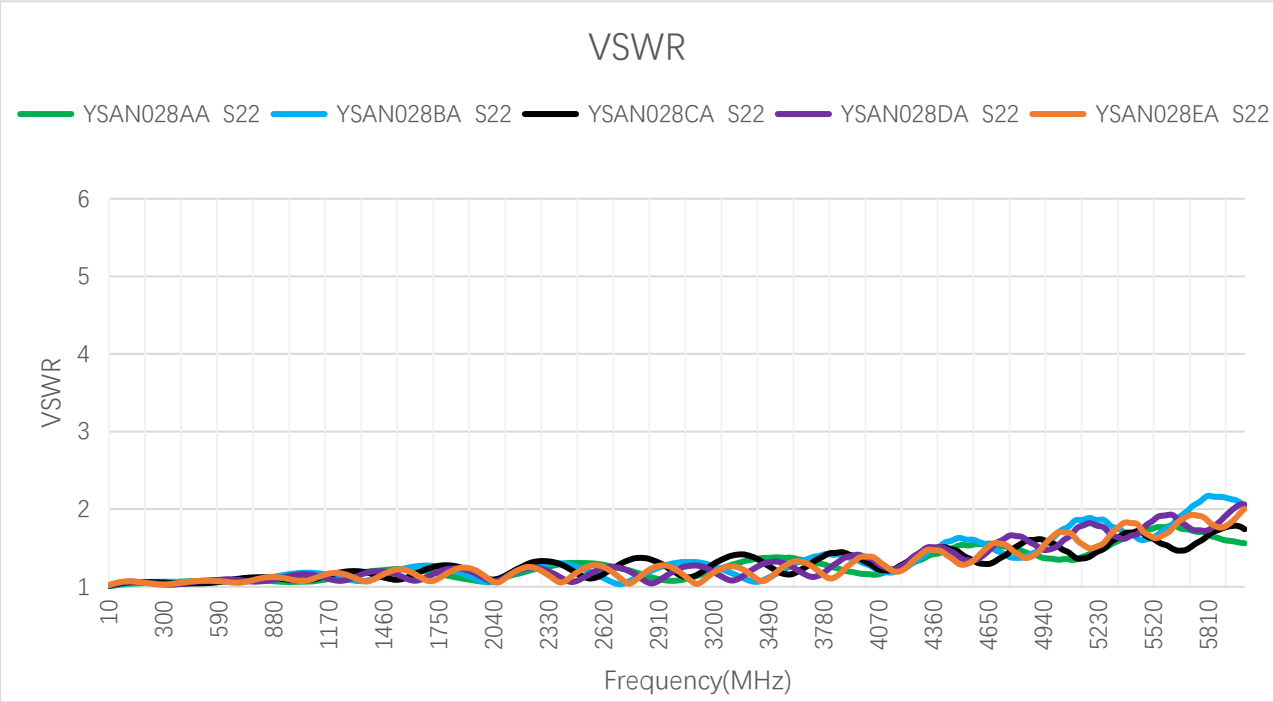


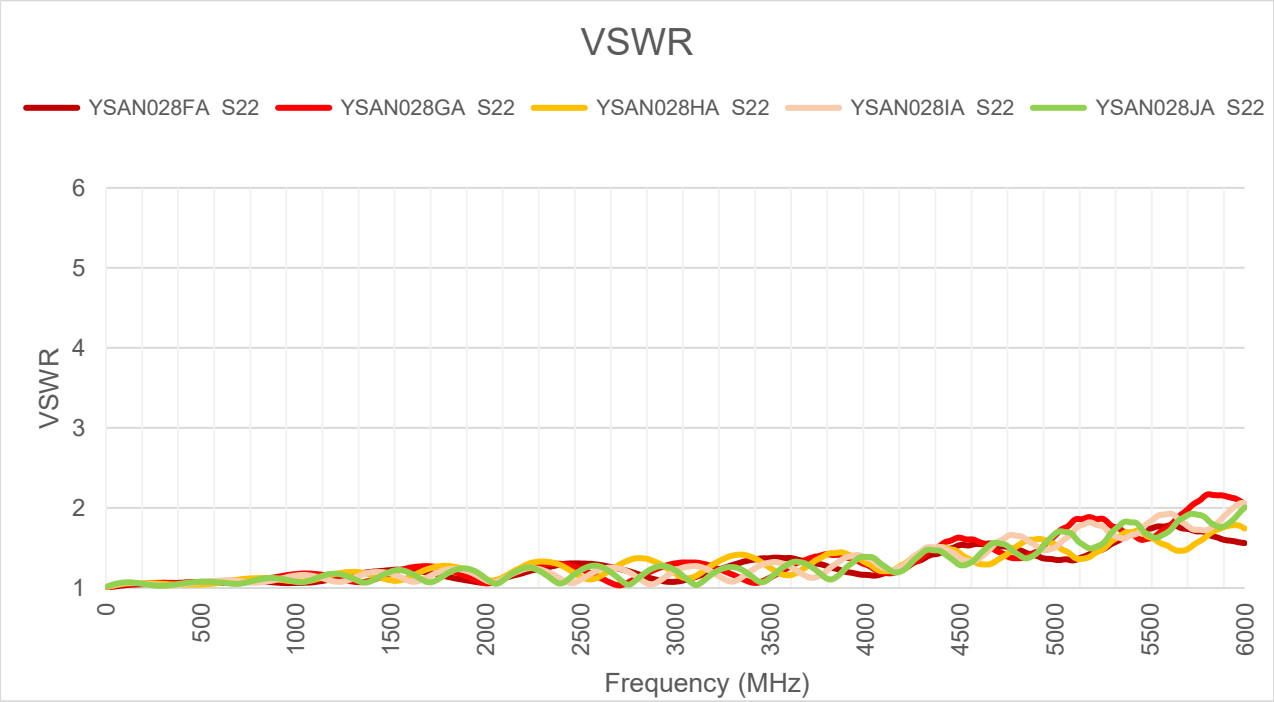
VSWR – S11

Frequency (MHz)	100	300	410	420	460	470	600	630	710	830
YSAN028AA	1.04	1.08	1.10	1.10	1.10	1.10	1.10	1.09	1.07	1.04
YSAN028BA	1.05	1.09	1.08	1.08	1.06	1.06	1.03	1.04	1.07	1.13
YSAN028CA	1.06	1.08	1.03	1.03	1.02	1.02	1.09	1.10	1.13	1.11
YSAN028DA	1.07	1.04	1.04	1.05	1.07	1.08	1.11	1.11	1.06	1.07
YSAN028EA	1.08	1.02	1.08	1.08	1.10	1.10	1.05	1.03	1.06	1.13
YSAN028FA	1.04	1.08	1.10	1.10	1.10	1.10	1.10	1.09	1.07	1.04
YSAN028GA	1.05	1.09	1.08	1.08	1.06	1.06	1.03	1.04	1.07	1.13
YSAN028HA	1.06	1.08	1.03	1.03	1.02	1.02	1.09	1.10	1.13	1.11
YSAN028IA	1.07	1.04	1.04	1.05	1.07	1.08	1.11	1.11	1.06	1.07
YSAN028JA	1.08	1.02	1.08	1.08	1.10	1.10	1.05	1.03	1.06	1.13
Frequency (MHz)	**900**	**960**	**1440**	**1710**	**1740**	**1880**	**1950**	**2140**	**2350**	**2450**
YSAN028AA	1.04	1.04	1.21	1.15	1.14	1.05	1.03	1.15	1.28	1.31
YSAN028BA	1.15	1.16	1.13	1.23	1.22	1.12	1.06	1.15	1.30	1.29
YSAN028CA	1.08	1.05	1.08	1.24	1.26	1.20	1.12	1.19	1.30	1.18
YSAN028DA	1.13	1.16	1.18	1.15	1.18	1.20	1.13	1.17	1.17	1.01
YSAN028EA	1.10	1.05	1.15	1.04	1.09	1.23	1.17	1.18	1.09	1.13
YSAN028FA	1.04	1.04	1.21	1.15	1.14	1.05	1.03	1.15	1.28	1.31
YSAN028GA	1.15	1.16	1.13	1.23	1.22	1.12	1.06	1.15	1.30	1.29
YSAN028HA	1.08	1.05	1.08	1.24	1.26	1.20	1.12	1.19	1.30	1.18
YSAN028IA	1.13	1.16	1.18	1.15	1.18	1.20	1.13	1.17	1.17	1.01
YSAN028JA	1.10	1.05	1.15	1.04	1.09	1.23	1.17	1.18	1.09	1.13

Frequency (MHz)	2600	3600	4700	5000	5500	6000				
YSAN028AA	1.30	1.42	1.48	1.27	1.58	1.27				
YSAN028BA	1.16	1.38	1.34	1.68	1.41	1.36				
YSAN028CA	1.11	1.09	1.32	1.40	1.48	1.54				
YSAN028DA	1.24	1.30	1.62	1.43	1.58	1.38				
YSAN028EA	1.28	1.37	1.49	1.58	1.26	1.42				
YSAN028FA	1.30	1.42	1.48	1.27	1.58	1.27				
YSAN028GA	1.16	1.38	1.34	1.68	1.41	1.36				
YSAN028HA	1.11	1.09	1.32	1.40	1.48	1.54				
YSAN028IA	1.24	1.30	1.62	1.43	1.58	1.38				
YSAN028JA	1.28	1.37	1.49	1.58	1.26	1.42				

3.2.2. VSWR – S22


VSWR
YSAN028AA S22
YSAN028BA S22
YSAN028CA S22
YSAN028DA S22
YSAN028EA S22
VSWR
6
5
4
3
2
1
10
300
590
880
1170
1460
1750
2040
2330
2620
2910
3200
3490
3780
4070
4360
4650
4940
5230
5520
5810
Frequency(MHz)


VSWR
YSAN028FA S22
YSAN028GA S22
YSAN028HA S22
YSAN028IA S22
YSAN028JA S22
VSWR
6
5
4
3
2
1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
Frequency (MHz)

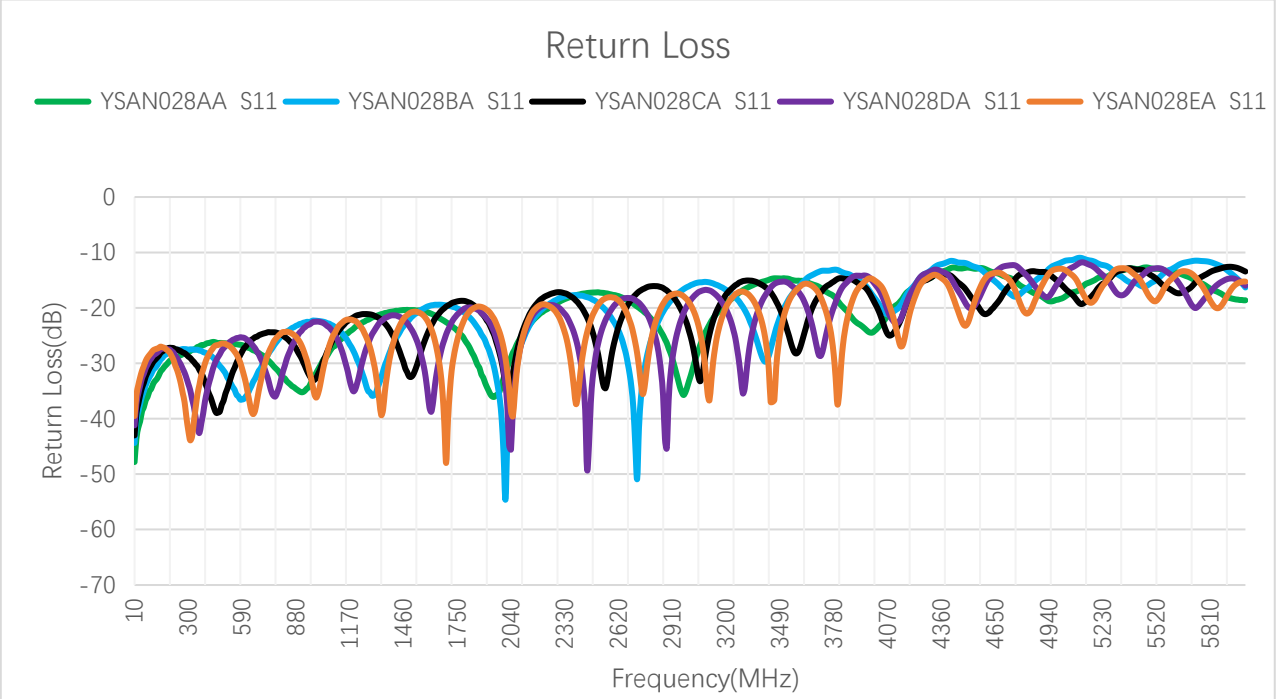
VSWR – S22

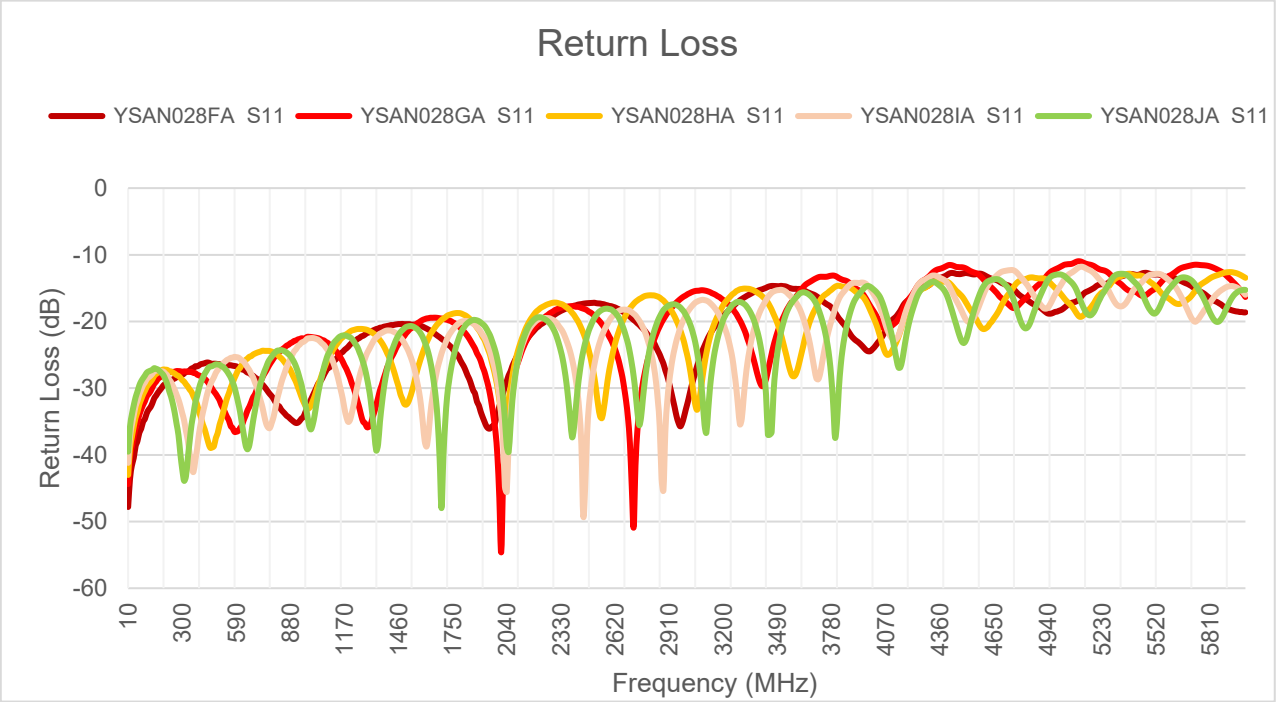
Frequency (MHz)	100	300	410	420	460	470	600	630	710	830
YSAN028AA	1.04	1.06	1.06	1.07	1.07	1.07	1.08	1.09	1.09	1.08
YSAN028BA	1.05	1.07	1.06	1.07	1.07	1.07	1.06	1.06	1.07	1.11
YSAN028CA	1.05	1.05	1.04	1.04	1.04	1.04	1.07	1.08	1.11	1.12
YSAN028DA	1.06	1.03	1.05	1.05	1.06	1.07	1.09	1.10	1.08	1.07
YSAN028EA	1.07	1.03	1.06	1.06	1.07	1.07	1.07	1.06	1.06	1.12
YSAN028FA	1.04	1.06	1.06	1.07	1.07	1.07	1.08	1.09	1.09	1.08
YSAN028GA	1.05	1.07	1.06	1.07	1.07	1.07	1.06	1.06	1.07	1.11
YSAN028HA	1.05	1.05	1.04	1.04	1.04	1.04	1.07	1.08	1.11	1.12
YSAN028IA	1.06	1.03	1.05	1.05	1.06	1.07	1.09	1.10	1.08	1.07
YSAN028JA	1.07	1.03	1.06	1.06	1.07	1.07	1.07	1.06	1.06	1.12
Frequency (MHz)	**900**	**960**	**1440**	**1710**	**1740**	**1880**	**1950**	**2140**	**2350**	**2450**
YSAN028AA	1.07	1.06	1.21	1.19	1.17	1.10	1.08	1.15	1.27	1.31
YSAN028BA	1.14	1.16	1.13	1.27	1.26	1.16	1.10	1.17	1.30	1.28
YSAN028CA	1.11	1.09	1.13	1.25	1.27	1.24	1.17	1.20	1.32	1.21
YSAN028DA	1.11	1.14	1.20	1.15	1.19	1.23	1.16	1.17	1.17	1.06
YSAN028EA	1.12	1.10	1.14	1.07	1.10	1.25	1.20	1.18	1.11	1.14
YSAN028FA	1.07	1.06	1.21	1.19	1.17	1.10	1.08	1.15	1.27	1.31
YSAN028GA	1.14	1.16	1.13	1.27	1.26	1.16	1.10	1.17	1.30	1.28
YSAN028HA	1.11	1.09	1.13	1.25	1.27	1.24	1.17	1.20	1.32	1.21
YSAN028IA	1.11	1.14	1.20	1.15	1.19	1.23	1.16	1.17	1.17	1.06
YSAN028JA	1.12	1.10	1.14	1.07	1.10	1.25	1.20	1.18	1.11	1.14

Frequency (MHz)	2600	3600	4700	5000	5500	6000				
YSAN028AA	1.29	1.38	1.53	1.35	1.74	1.56				
YSAN028BA	1.13	1.26	1.45	1.65	1.62	2.05				
YSAN028CA	1.14	1.16	1.35	1.54	1.63	1.74				
YSAN028DA	1.23	1.28	1.58	1.51	1.83	2.06				
YSAN028EA	1.27	1.30	1.56	1.68	1.66	2.01				
YSAN028FA	1.29	1.38	1.53	1.35	1.74	1.56				
YSAN028GA	1.13	1.26	1.45	1.65	1.62	2.05				
YSAN028HA	1.14	1.16	1.35	1.54	1.63	1.74				
YSAN028IA	1.23	1.28	1.58	1.51	1.83	2.06				
YSAN028JA	1.27	1.30	1.56	1.68	1.66	2.01				

3.3. Return Loss

3.3.1. Return Loss – S11



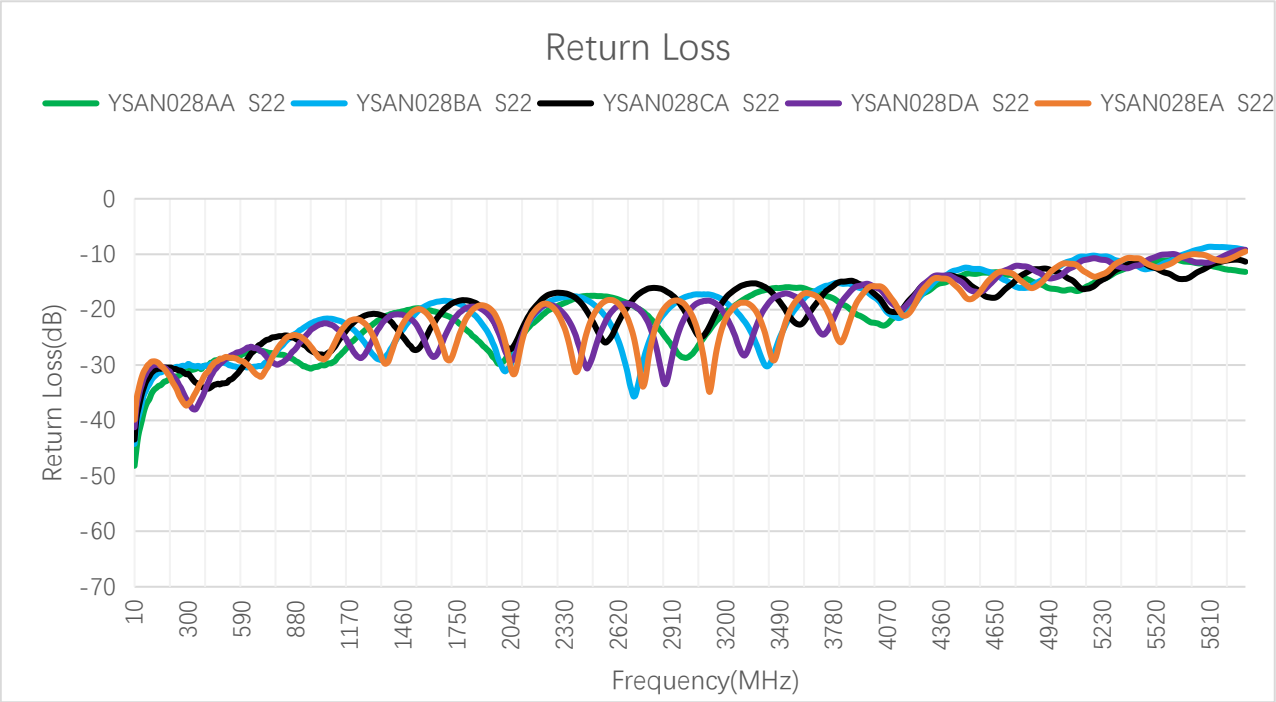


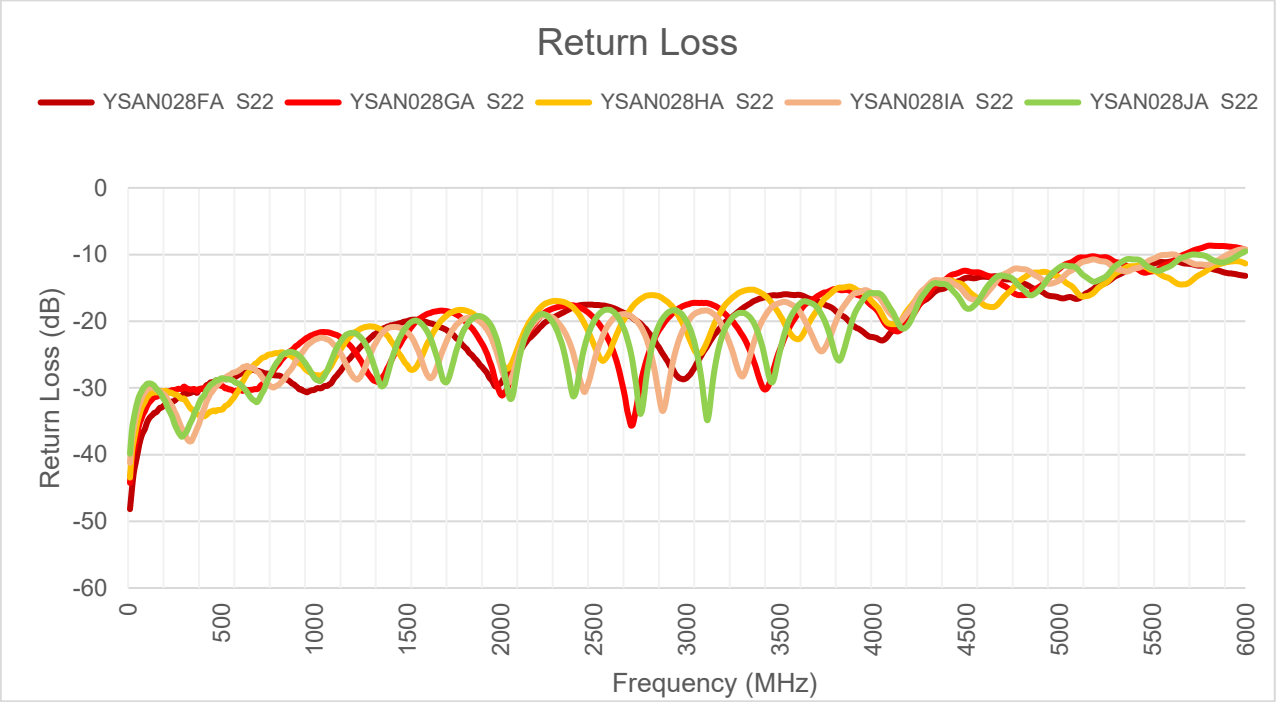
Return Loss (dB) – S11

Frequency (MHz)	100	300	410	420	460	470	600	630	710	830
YSAN028AA	-34.59	-28.01	-26.34	-26.26	-26.34	-26.33	-26.84	-27.23	-28.85	-33.20
YSAN028BA	-31.95	-27.56	-28.41	-28.58	-30.07	-30.50	-36.42	-34.77	-29.65	-24.30
YSAN028CA	-30.39	-28.78	-35.40	-36.14	-38.89	-38.69	-27.29	-26.05	-24.59	-25.50
YSAN028DA	-29.14	-33.75	-33.73	-32.57	-28.88	-28.35	-25.40	-26.03	-30.84	-29.30
YSAN028EA	-28.11	-42.17	-28.47	-27.87	-26.70	-26.56	-32.20	-36.98	-30.46	-24.28
YSAN028FA	-34.59	-28.01	-26.34	-26.26	-26.34	-26.33	-26.84	-27.23	-28.85	-33.20
YSAN028GA	-31.95	-27.56	-28.41	-28.58	-30.07	-30.50	-36.42	-34.77	-29.65	-24.30
YSAN028HA	-30.39	-28.78	-35.40	-36.14	-38.89	-38.69	-27.29	-26.05	-24.59	-25.50
YSAN028IA	-29.14	-33.75	-33.73	-32.57	-28.88	-28.35	-25.40	-26.03	-30.84	-29.30
YSAN028JA	-28.11	-42.17	-28.47	-27.87	-26.70	-26.56	-32.20	-36.98	-30.46	-24.28
Frequency (MHz)	**900**	**960**	**1440**	**1710**	**1740**	**1880**	**1950**	**2140**	**2350**	**2450**
YSAN028AA	-35.07	-33.61	-20.47	-22.98	-23.79	-32.01	-36.05	-23.02	-18.16	-17.33
YSAN028BA	-22.92	-22.48	-24.40	-19.68	-19.93	-24.77	-30.92	-23.18	-17.80	-18.07
YSAN028CA	-28.49	-32.59	-27.91	-19.38	-18.93	-20.92	-24.99	-21.15	-17.66	-21.69
YSAN028DA	-24.47	-22.86	-21.64	-23.32	-21.62	-20.87	-24.42	-22.33	-22.15	-49.16
YSAN028EA	-26.11	-32.39	-23.19	-35.12	-27.26	-19.83	-22.07	-21.75	-27.29	-24.47
YSAN028FA	-35.07	-33.61	-20.47	-22.98	-23.79	-32.01	-36.05	-23.02	-18.16	-17.33
YSAN028GA	-22.92	-22.48	-24.40	-19.68	-19.93	-24.77	-30.92	-23.18	-17.80	-18.07
YSAN028HA	-28.49	-32.59	-27.91	-19.38	-18.93	-20.92	-24.99	-21.15	-17.66	-21.69
YSAN028IA	-24.47	-22.86	-21.64	-23.32	-21.62	-20.87	-24.42	-22.33	-22.15	-49.16
YSAN028JA	-26.11	-32.39	-23.19	-35.12	-27.26	-19.83	-22.07	-21.75	-27.29	-24.47

Frequency (MHz)	2600	3600	4700	5000	5500	6000				
YSAN028AA	-17.70	-15.13	-14.31	-18.40	-12.92	-18.63				
YSAN028BA	-22.81	-15.96	-16.68	-11.92	-15.35	-16.32				
YSAN028CA	-25.80	-27.06	-17.20	-15.54	-14.29	-13.45				
YSAN028DA	-19.43	-17.59	-12.48	-14.99	-12.93	-16.00				
YSAN028EA	-18.20	-16.12	-14.15	-12.94	-18.65	-15.27				
YSAN028FA	-17.70	-15.13	-14.31	-18.40	-12.92	-18.63				
YSAN028GA	-22.81	-15.96	-16.68	-11.92	-15.35	-16.32				
YSAN028HA	-25.80	-27.06	-17.20	-15.54	-14.29	-13.45				
YSAN028IA	-19.43	-17.59	-12.48	-14.99	-12.93	-16.00				
YSAN028JA	-18.20	-16.12	-14.15	-12.94	-18.65	-15.27				

3.3.2. Return Loss – S22



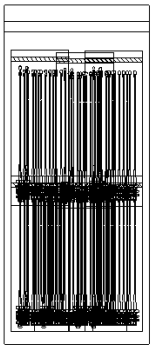
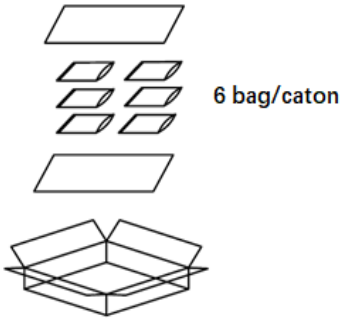


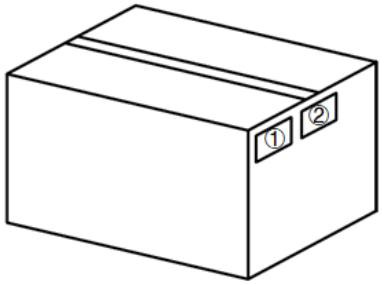
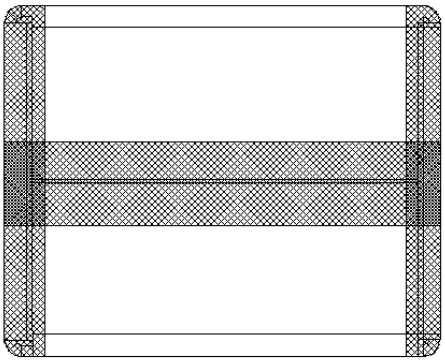
Return Loss (dB) – S22

Frequency (MHz)	100	300	410	420	460	470	600	630	710	830
YSAN028AA	-35.29	-30.82	-30.07	-29.59	-29.16	-28.89	-27.94	-27.54	-27.55	-28.43
YSAN028BA	-32.79	-29.79	-30.09	-29.82	-29.47	-29.43	-30.30	-30.24	-29.70	-25.58
YSAN028CA	-31.47	-31.58	-34.24	-34.05	-33.37	-33.51	-30.00	-28.33	-25.74	-24.67
YSAN028DA	-30.29	-36.65	-32.96	-32.12	-30.20	-29.83	-27.27	-26.86	-28.03	-28.92
YSAN028EA	-29.42	-36.97	-31.02	-30.38	-29.22	-28.86	-29.40	-30.33	-31.31	-25.04
YSAN028FA	-35.29	-30.82	-30.07	-29.59	-29.16	-28.89	-27.94	-27.54	-27.55	-28.43
YSAN028GA	-32.79	-29.79	-30.09	-29.82	-29.47	-29.43	-30.30	-30.24	-29.70	-25.58
YSAN028HA	-31.47	-31.58	-34.24	-34.05	-33.37	-33.51	-30.00	-28.33	-25.74	-24.67
YSAN028IA	-30.29	-36.65	-32.96	-32.12	-30.20	-29.83	-27.27	-26.86	-28.03	-28.92
YSAN028JA	-29.42	-36.97	-31.02	-30.38	-29.22	-28.86	-29.40	-30.33	-31.31	-25.04
Frequency (MHz)	**900**	**960**	**1440**	**1710**	**1740**	**1880**	**1950**	**2140**	**2350**	**2450**
YSAN028AA	-29.70	-30.66	-20.45	-21.31	-21.93	-26.17	-28.75	-23.04	-18.47	-17.52
YSAN028BA	-23.74	-22.47	-24.44	-18.48	-18.69	-22.41	-26.62	-22.11	-17.65	-18.29
YSAN028CA	-25.76	-27.38	-24.14	-19.17	-18.62	-19.52	-22.26	-20.92	-17.23	-20.33
YSAN028DA	-26.00	-23.67	-20.88	-22.99	-21.36	-19.89	-22.40	-21.90	-21.92	-30.63
YSAN028EA	-24.80	-26.66	-23.73	-29.14	-26.75	-19.20	-20.67	-21.71	-25.74	-23.95
YSAN028FA	-29.70	-30.66	-20.45	-21.31	-21.93	-26.17	-28.75	-23.04	-18.47	-17.52
YSAN028GA	-23.74	-22.47	-24.44	-18.48	-18.69	-22.41	-26.62	-22.11	-17.65	-18.29
YSAN028HA	-25.76	-27.38	-24.14	-19.17	-18.62	-19.52	-22.26	-20.92	-17.23	-20.33
YSAN028IA	-26.00	-23.67	-20.88	-22.99	-21.36	-19.89	-22.40	-21.90	-21.92	-30.63
YSAN028JA	-24.80	-26.66	-23.73	-29.14	-26.75	-19.20	-20.67	-21.71	-25.74	-23.95

Frequency (MHz)	2600	3600	4700	5000	5500	6000				
YSAN028AA	-17.97	-16.03	-13.63	-16.46	-11.35	-13.19				
YSAN028BA	-24.10	-18.75	-14.65	-12.17	-12.52	-9.29				
YSAN028CA	-23.57	-22.70	-16.46	-13.39	-12.36	-11.35				
YSAN028DA	-19.74	-18.29	-12.98	-13.90	-10.69	-9.21				
YSAN028EA	-18.48	-17.58	-13.19	-11.95	-12.14	-9.51				
YSAN028FA	-17.97	-16.03	-13.63	-16.46	-11.35	-13.19				
YSAN028GA	-24.10	-18.75	-14.65	-12.17	-12.52	-9.29				
YSAN028HA	-23.57	-22.70	-16.46	-13.39	-12.36	-11.35				
YSAN028IA	-19.74	-18.29	-12.98	-13.90	-10.69	-9.21				
YSAN028JA	-18.48	-17.58	-13.19	-11.95	-12.14	-9.51				

4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		25 products and accessories are put into small PE bags.
2		20 small PE bag in a big PE bag. 500 products in a big PE bag.
3		Place a clapboard at the bottom and top; (6 Big PE Bags / Carton Box) (3000 Antennas / Carton Box) Carton Size: L × W × H = 300 × 260 × 230 mm

4		**Position for Attaching Labels** ① Carton label ② Quality label
5		**Sealing Cartons** H-shaped sealing cartons

Contact Us

At Quectel, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

Quectel Wireless Solutions Co., Ltd.
No. 8 Waipojing Road, Sijing Town, Songjiang District, Shanghai 201601, China
Tel: +86 21 5108 6236
Email: info@quectel.com

Or our local offices. For more information, please visit:
https://www.quectel.com/contact/.

For technical support, or to report documentation errors, please visit:
https://www.quectel.com/tech-support/.
Or email us at: support@quectel.com.

Legal Notices

We provide this document to support your product design. You are required to design your products based on the specifications and parameters set forth herein. You agree that you are responsible for using independent analysis and evaluation in designing intended products, and we provide reference designs for illustrative purposes only. Before using any hardware, software or service guided by this document, please read this notice carefully. Even though we employ commercially reasonable efforts to provide the best possible experience, you hereby acknowledge and agree that this document and related services hereunder are provided to you on an “as available” basis. You acknowledge and agree that we may add to, amend, or restate this document at any time at our sole discretion without any prior notice to you, and such additions, amendments, or restatements shall be binding upon you.

Use and Disclosure Restrictions

License Agreements

The recipient of any hardware, software, materials, or documentation provided by us shall keep such content confidential, unless expressly authorized by us. The recipient shall not disclose, access, or use any part of the received content for any purpose other than the execution and implementation of the intended project.

Copyright

Our and third-party products hereunder may contain copyrighted materials, including but not limited to protected content, hardware, software, and documentation owned by us or applicable third parties. Unless prior written consent is obtained, you shall not access, use, or disclose any documents or information provided by us, nor shall you copy, reproduce, republish, display, translate, distribute, merge, modify, or create derivative works from any such copyrighted materials. We and the applicable third party retain exclusive rights to all copyrighted materials. No license to any patents, copyrights, trademarks, or service marks shall be granted or transferred. For the avoidance of doubt, no form of purchase shall be construed as granting any license beyond a normal, non-exclusive, royalty-free license to use the product. We reserve the right to pursue legal action against any violation of confidentiality obligations, unauthorized use, or any other unlawful or malicious use of the aforementioned documents and information.

Trademarks

Unless otherwise expressly provided, nothing in this document shall be construed as conferring any rights to use any trademark, trade name, name, abbreviation, or counterfeit thereof owned by us or any third party in advertising, publicity, or any other contexts.

Third-Party Rights

You understand that this document may refer to hardware, software, and/or documentation owned by one or more third parties (“third-party materials”). Use of such third-party materials is subject to all applicable restrictions and obligations set forth herein.

We make no warranty or representation, either express or implied, regarding the third-party materials, including but not limited to any implied or statutory, warranties of merchantability or fitness for a particular purpose, quiet enjoyment, system integration, information accuracy, and non-infringement of any third-party intellectual property rights with regard to the licensed technology or use thereof. Nothing herein constitutes a representation or warranty by us to either develop, enhance, modify, distribute, market, sell, offer for sale, or otherwise maintain production of any our products or any other hardware, software, device, tool, information, or product. We moreover disclaim any and all warranties arising from the course of dealing, course of performance, or usage of trade.

Privacy Policy

To enable product functionality, certain device data may be uploaded to our or third-party servers, including those operated by carriers, chipset suppliers, or servers designated by you. We strictly comply with applicable laws and regulations and will retain, use, disclose, or otherwise process relevant data solely for the purpose of enabling product functionality, or as permitted by applicable laws. Before interacting with any third party regarding data exchange, please be informed of and understand their privacy and data security policies.

Disclaimer

a) We shall not be liable for any damages resulting from failure to comply with applicable operational or design specifications.
b) We shall bear no liability for any inaccuracies or omissions in this document, nor for any damages arising from the use of the information contained herein.
c) While we make every effort to ensure the integrity, accuracy, and timeliness of the features and functions under development, errors or omissions may nevertheless occur. Unless otherwise provided in a valid written agreement, we make no warranties of any kind, express, implied, or statutory, and disclaim all liability for any loss or damage arising from the use of any features or functions under development, to the maximum extent permitted by law, regardless of whether such loss or damage is foreseeable.
d) We assume no legal responsibility for the accessibility, safety, accuracy, availability, legality, or completeness of any information, content, advertising, commercial offers, products, services, or materials on third-party websites or third-party resources.

Revision History

Version	Date	Author	Note
-	2022-08-08	Sly Liu	Creation of the document
1.0	2022-08-08	Sly Liu	First official release
2.0	2023-06-09	Damon Zhang/ Lucky Feng/ David Liu/ Aria Chu	Updated all data and datasheet templates.
2.1	2023-12-02	Lucky Feng/ Damon Zhang	1. Numerous changes were made to this document. It should be read in its entirety. 2. Updated the drawing (Chapter 2).
2.2	2026-01-05	Rainey Liao	1. Updated product image (Cover). 2. Updated product name.

www.quectel.com