



RF Cable Datasheet

Product OC: YLUX013XQP

Version: 1.0

Date: 2023-11-10

Status: Released

Product Name: RF Cable

Key Features:

Frequency Band: DC–2000 MHz

Cable Length: 1700 mm

Connector Type: SMA Male to SMA Female

RoHS and REACH 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.

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1 Specification

1.1. Electrical

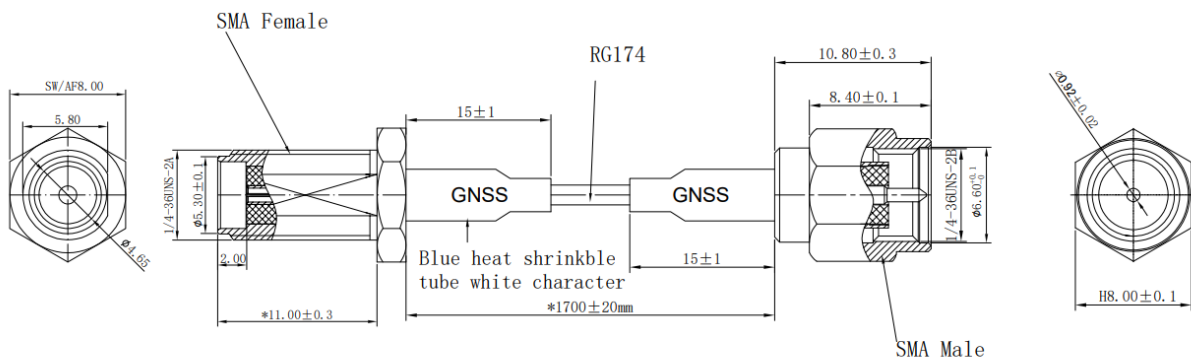
Electrical	
Frequency Range	DC–2000 MHz
Impedance	50 Ω
VSWR	≤ 1.3
Return Loss	≤ -19 dB
Max Cable Loss	-2.5 dB

Band Frequency (MHz)	GPS L5 GALILEO E5a BEIDOU B2a-B2I QZSS L5 IRNSS L5	GALILEO E5b BEIDOU B2b	GPS L2 QZSS L2C	GLONASS G2	BEIDOU B3	BEIDOU B1I	GPS L1 GALILEO E1 BEIDOU B1C QZSS L1	GLONASS G1
	1176	1207	1227	1248	1268	1561	1575	1602
Max S11 VSWR	1.2	1.1	1.2	1.1	1.1	1.1	1.2	1.1
Max S22 VSWR	1.2	1.1	1.2	1.1	1.1	1.1	1.3	1.1
Max S11 Return Loss (dB)	-22.0	-25.0	-21.4	-28.9	-24.4	-23.4	-19.9	-25.8
Max S22 Return Loss (dB)	-21.5	-26.0	-20.9	-27.0	-24.0	-23.5	-18.9	-25.3
Max Cable Loss S21 (dB)	-1.8	-1.9	-1.9	-1.9	-1.9	-2.1	-2.2	-2.2
Max Cable Loss S12 (dB)	-1.8	-1.9	-1.9	-1.9	-1.9	-2.1	-2.2	-2.2

1.2. Mechanical & Environmental

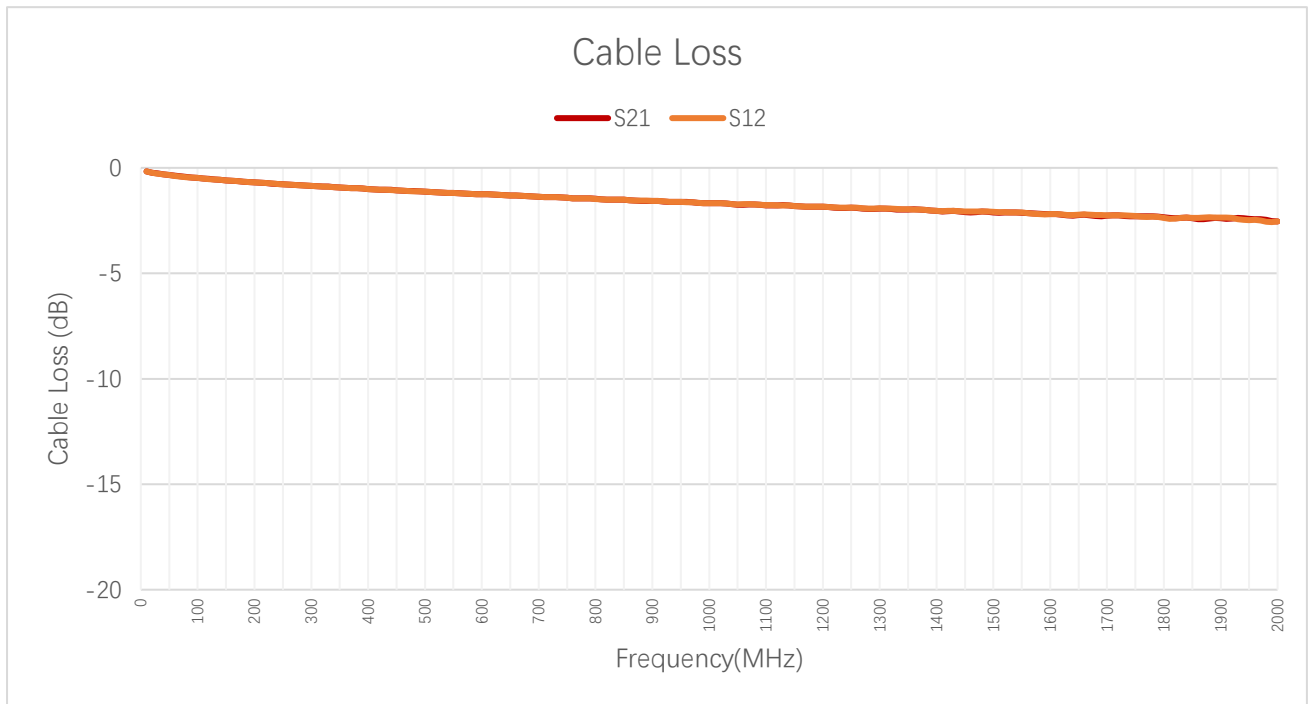
Mechanical		
Cable Type & Color & Length		RG174 & Black & 1700 mm
Item	Material	Diameter (mm)
Inner Conductor	Bare copper wire	0.48 ±0.01
Insulator	PE	1.52 ±0.10
Outer Conductor	Bare copper wire	2.00 ±0.01
Jacket	PVC	2.80 ±0.10
Connector Type		SMA Male to SMA Female
Weight		Typ. 24.5g
Environmental		
Operation Temperature		-40 °C to +85 °C
Storage Temperature		-40 °C to +85 °C
RoHS and REACH Compliant		Yes

2 Drawing



3 Detailed Performance

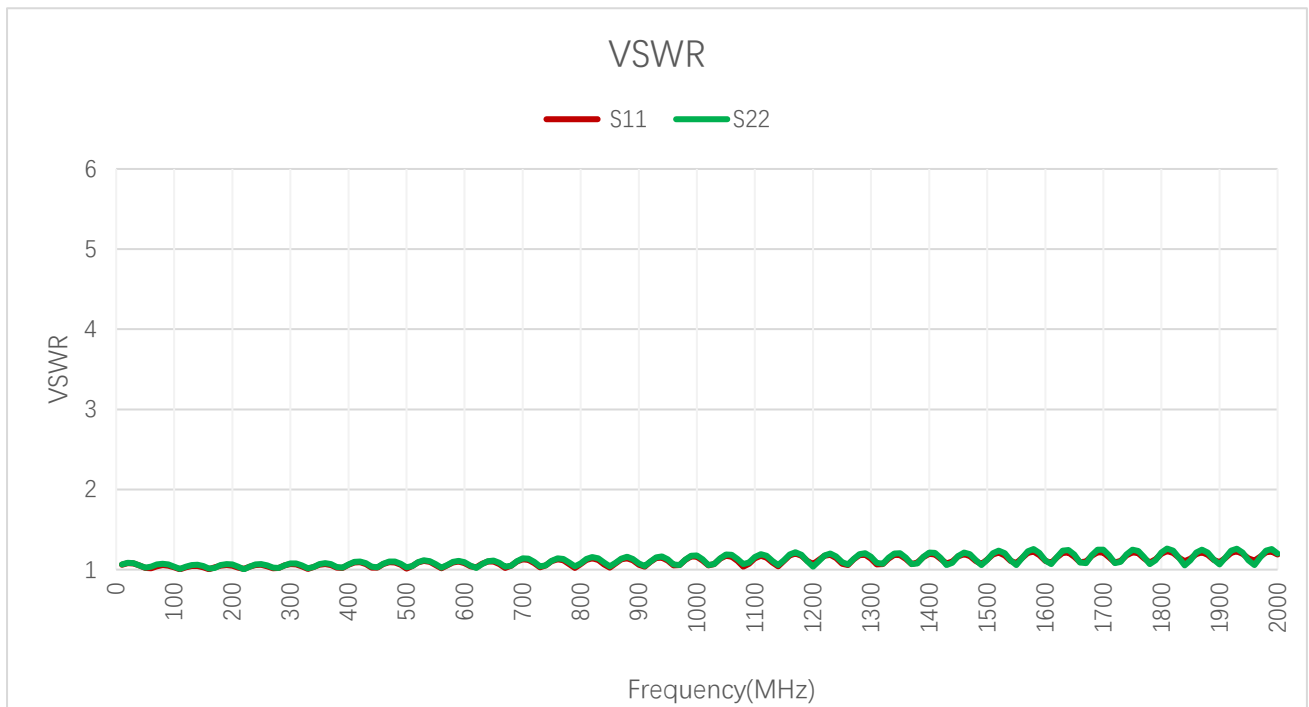
3.1. Cable Loss



Cable Loss (dB)

Frequency (MHz)	1176	1207	1227	1248	1268	1561	1575	1602
S21	-1.8	-1.9	-1.9	-1.9	-1.9	-2.1	-2.2	-2.2
S12	-1.8	-1.9	-1.9	-1.9	-1.9	-2.1	-2.2	-2.2

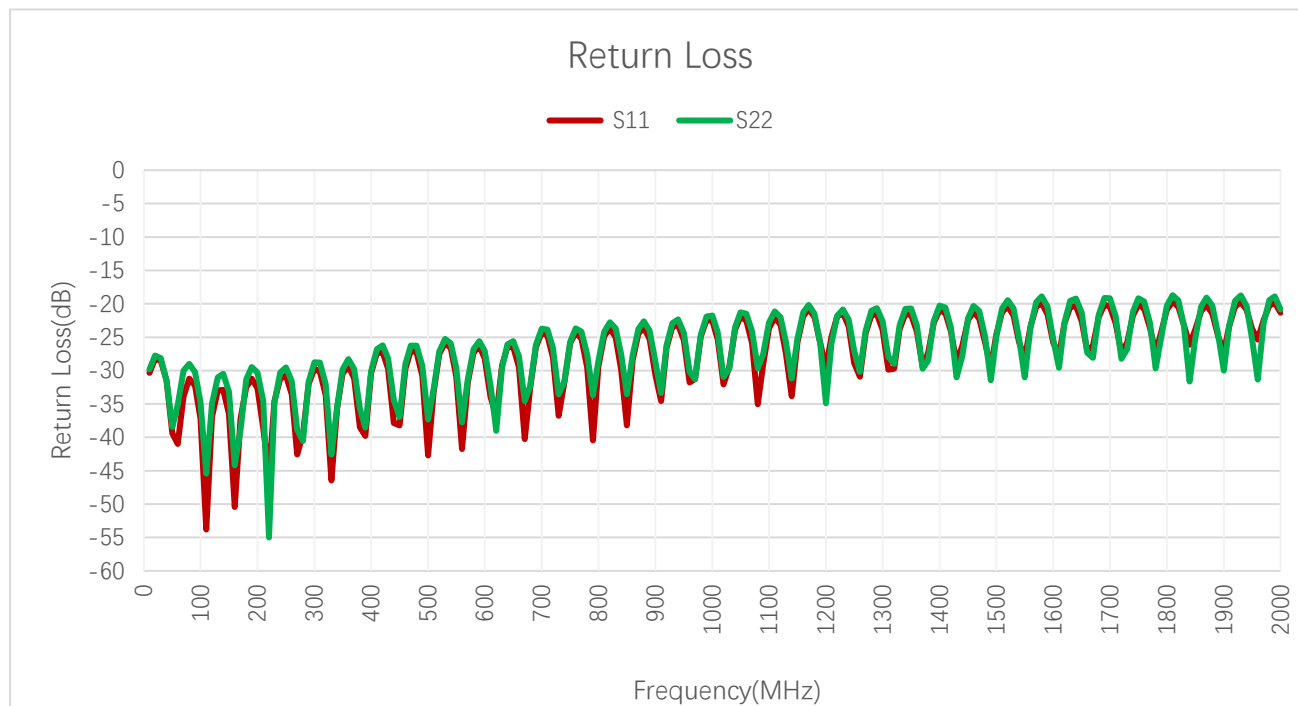
3.2. VSWR



VSWR

Frequency (MHz)	1176	1207	1227	1248	1268	1561	1575	1602
S11	1.2	1.1	1.2	1.1	1.1	1.1	1.2	1.1
S22	1.2	1.1	1.2	1.1	1.1	1.1	1.3	1.1

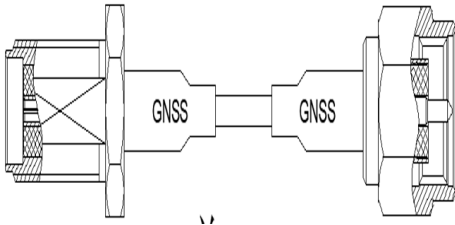
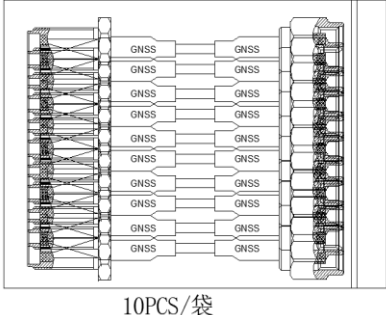
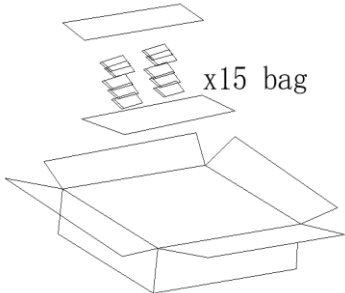
3.3. Return Loss

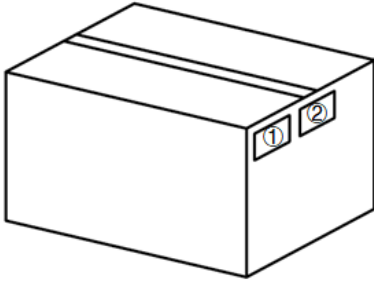
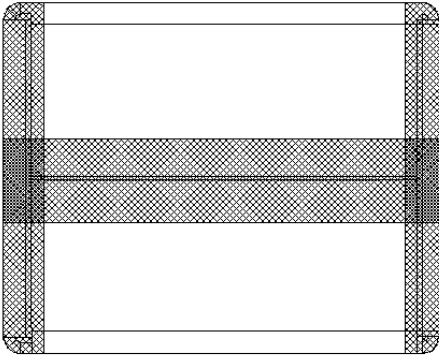


Return Loss (dB)

Frequency (MHz)	1176	1207	1227	1248	1268	1561	1575	1602
S11	-22.0	-25.0	-21.4	-28.9	-24.4	-23.4	-19.9	-25.8
S22	-21.5	-26.0	-20.9	-27.0	-24.0	-23.5	-18.9	-25.3

4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		Product drawing
2		10 pcs antenna products in a PE bag.
3		<p>(15 PE Bags / Carton Box) (150 PCS Antennas / Carton Box) Estimated quantity Products that cannot fill the entire carton box are packed in a suitable size carton box.</p> <p><u>Carton Size:</u> <u>L × W × H = 325 × 325 × 200 mm</u></p>

4		<p>Position for Attaching Labels</p> <p>① Carton Label ② Quality Label</p>
5		<p>Sealing Cartons “I” type sealing cartons</p>
6	<p>The initial packaging method described above is for reference only, and the final actual packaging method shall be subject to the actual shipping packaging.</p>	

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.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China

Tel: +86 21 5108 6236

Email: info@quectel.com

Or our local offices. For more information, please visit:

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For technical support, or to report documentation errors, please visit:

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Revision History

Version	Date	Author	Note
-	2023-11-10	Knight HU/ Lucky FENG/ David LIU/ Aria CHU	Creation of the document
1.0	2023-11-10	Knight HU/ Lucky FENG/ David LIU/ Aria CHU	First official release



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