

RF Cable Datasheet

Product OC: YLUX013XQP
Version: 1.1
Date: 2025-07-14
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

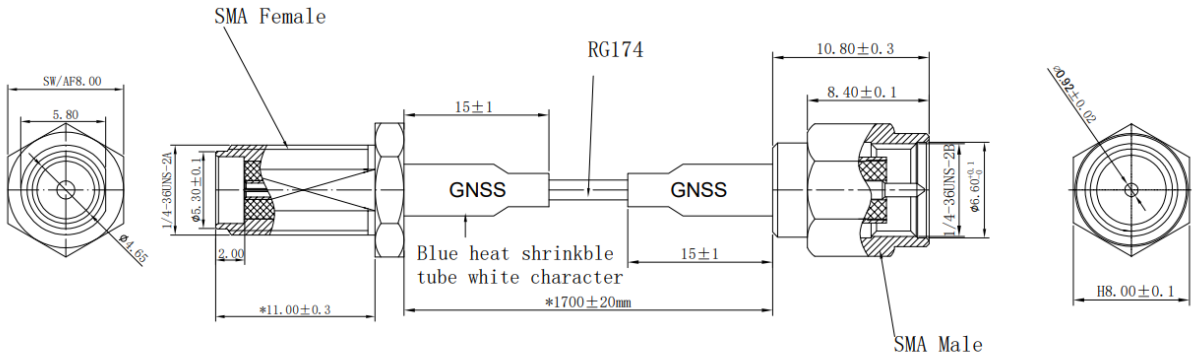
Electrical	
Frequency Range	DC–2000 MHz
Impedance	50 Ω
VSWR	≤ 1.3
Return Loss	≤ -19 dB
Max Cable Loss	-2.5 dB

Band / Frequency (MHz)	GPS L5 GALILEO E5a BDS B2a-B2I QZSS L5 IRNSS L5	GALILEO E5b BDS B2b	GPS L2 QZSS L2C	GLONASS G2	BDS B3	BDS B1I	GPS L1 GALILEO E1 BDS 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

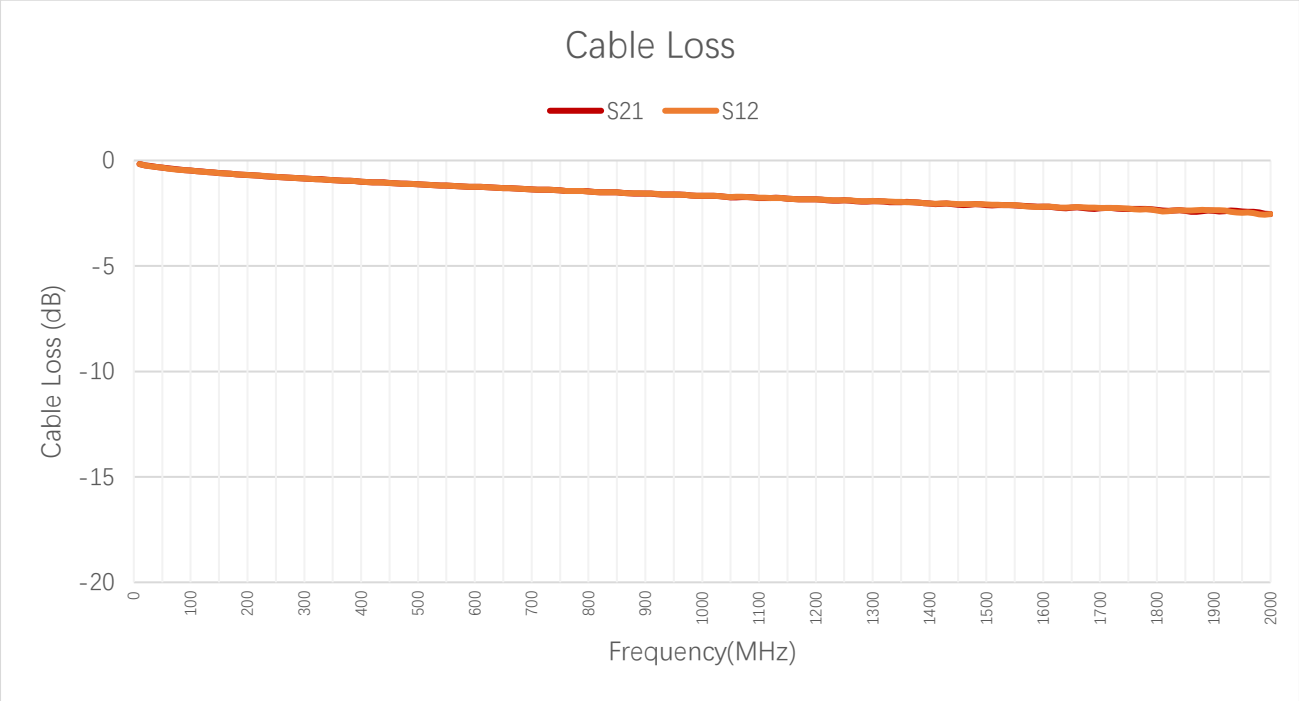
Mechanical		
Cable Type & Color & Length	RG174 & Black & 1700 mm	
Item	**Material**	**Diameter (mm)**
Inner Conductor	Bare copper wire	0.48 ±0.01
Insulator	PE	1.52 ±0.10
Outer Conductor	Bare copper wire	2.00 ±0.01
Jacket	PVC	2.80 ±0.10
Connector Type	SMA Male to SMA Female	
Weight	Typ. 24.5g	
Environmental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

2 Drawing


SMA Female
RG174
10.80±0.3
8.40±0.1
SW/AF8.00
5.80
15±1
GNSS
GNSS
1/4-36UNS-2A
1/4-36UNS-2B
Blue heat shrinkble
tube white character
15±1
2.00
*11.00±0.3
*1700±20mm
SMA Male
H8.00±0.1

3 Detailed Performance

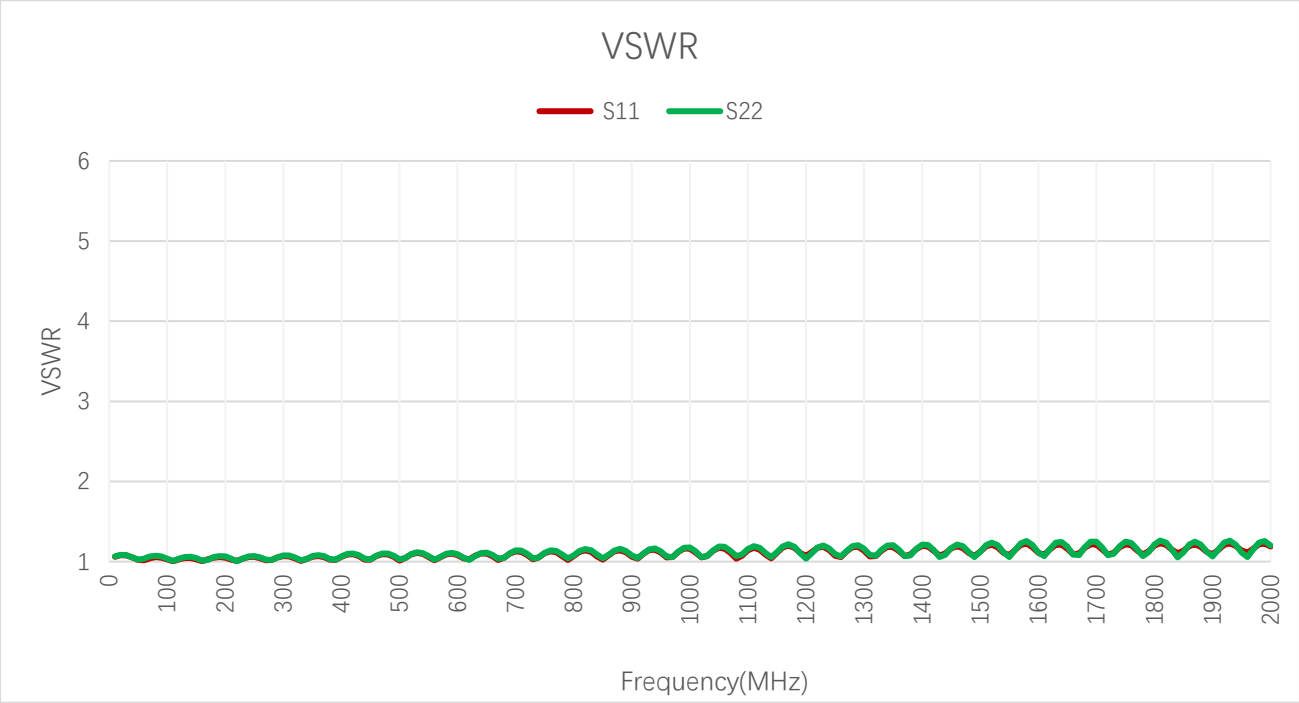
3.1. Cable Loss



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

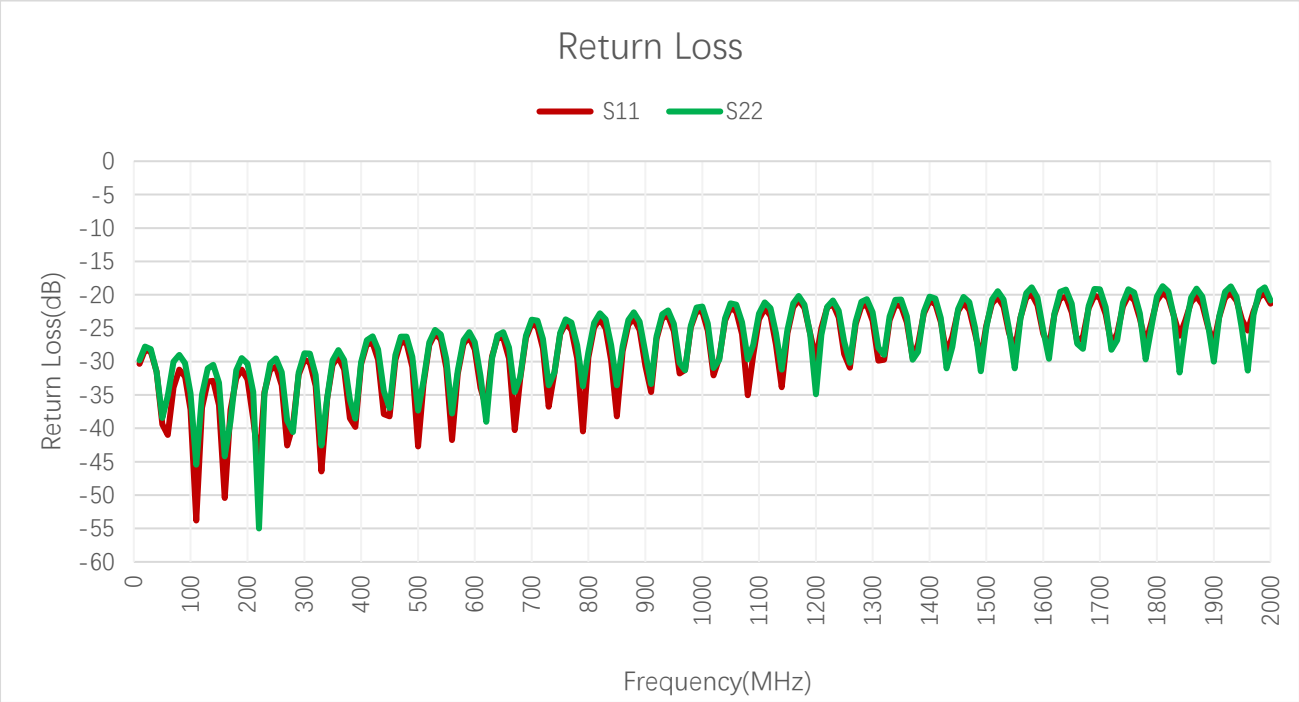
3.2. VSWR



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

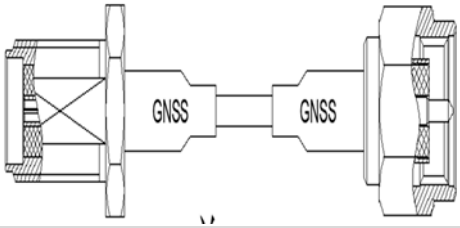
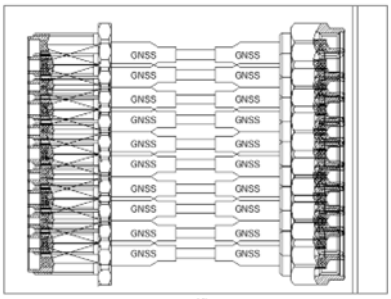
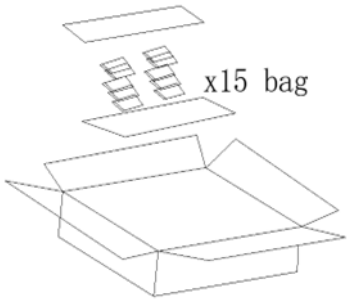
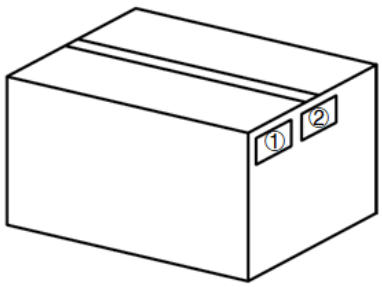
3.3. Return Loss

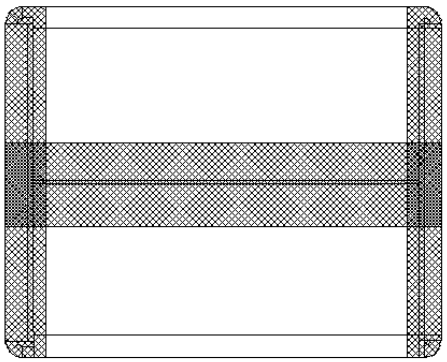


Return Loss (dB)

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 antenna products in a PE bag.
3		(15 PE Bags / Carton Box) (150 Antennas / Carton Box) Estimated quantity Products that cannot fill the entire carton box are packed in a suitable size carton box. Carton Size: L × W × H = 325 × 325 × 200 mm
4		**Position for Attaching Labels** ① Carton Label ② Quality Label

5		**Sealing Cartons** H-shaped sealing cartons
Note	The initial packaging method described above is for reference only, and the final actual packaging method shall be subject to the actual shipping packaging.	

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:

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Or our local offices. For more information, please visit:
http://www.quectel.com/support/sales.htm.

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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
1.1	2025-07-14	Aria CHU	Updated the antenna image (Cover page).



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