



Rapidtek

RF Coaxial Cable Assembly

RPLL-220

Series

Datasheet

RPLL-220 series semi-flexible low loss cable assemblies are optimized to the expecting frequency bands that work to 18 GHz. The features of RPLL-220 involve additive flexibility, extended flex life, superior electrical and mechanical performance for static and dynamic applications.

We accommodate several types of connectors and different lengths of RPLL-220 Cable to fulfill the custom demands.

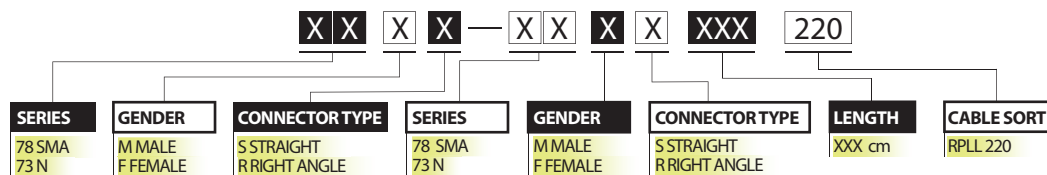
Advantage

- ⊙ Additive flexibility
- ⊙ Extended flex life
- ⊙ Superior electrical and mechanical performance
- ⊙ Lower insertion loss and return loss

Applications

- ⊙ Communication systems
- ⊙ Radar interconnects
- ⊙ RF test equipment

PART NUMBER



Before placing an order, please provide the following information. The naming rule follows the above rules, including a sequence rule. If numbers or letters are sorted earlier, they need to be placed at the front. Offering an example for reference.

Connector A + Connector B + Raw Cable Length + Cable Type

Example:

Connector A: SMA Male Straight
 Connector B: N Male Straight
 Raw Cable Length: 100 cm

└ = SMA Male Straight + N Male Straight + Raw Cable Length 100 cm + RPLL-220

└ = 78MS - 73MS 100 220

└ = 73MS - 78MS 100 220

* Make sure the specification of RPLL-220 and then select connector type.

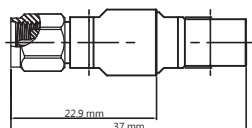


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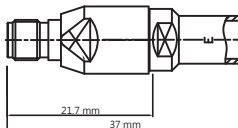
CONNECTOR-TYPE

SMA

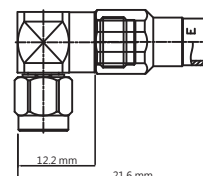
SMA Male Straight (Code: 78MS)
Maximum Frequency: 18 GHz



SMA Female Straight (Code: 78FS)
Maximum Frequency: 18 GHz

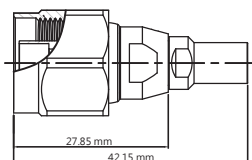


SMA Male Right Angle (Code: 78MR)
Maximum Frequency: 12.4 GHz

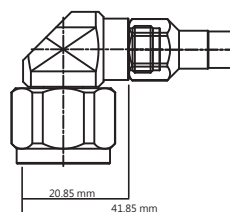


N

N Male Straight (Code: 73MS)
Maximum Frequency: 18 GHz



N Male Right Angle (Code: 73MR)
Maximum Frequency: 12.4 GHz

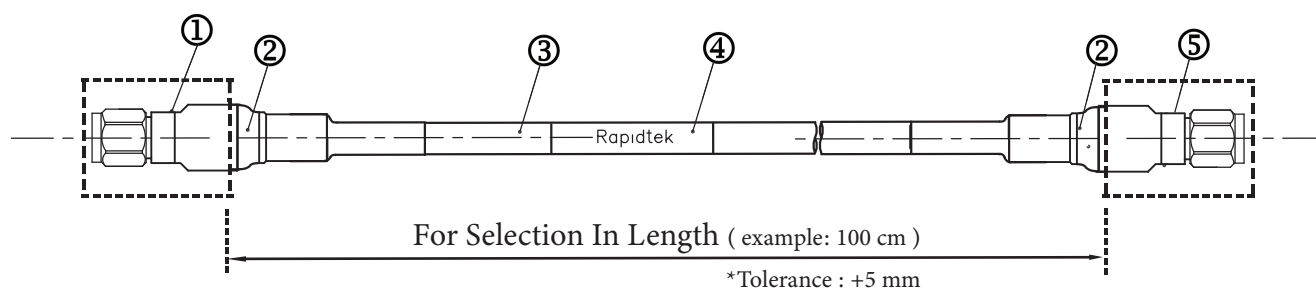


Cable		Connector-type							
		SMA Type				N Type			
		Male		Female		Male		Female	
P/N	Frequency	Straight	R/A	Straight	R/A	Straight	R/A	Straight	R/A
RPLL-242	DC~12.4 GHz	78MS	78MR	78FS	-	73MS	73MR	-	-
	DC~18GHz		-		-		-	-	-



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STANDARD DIMENSIONS



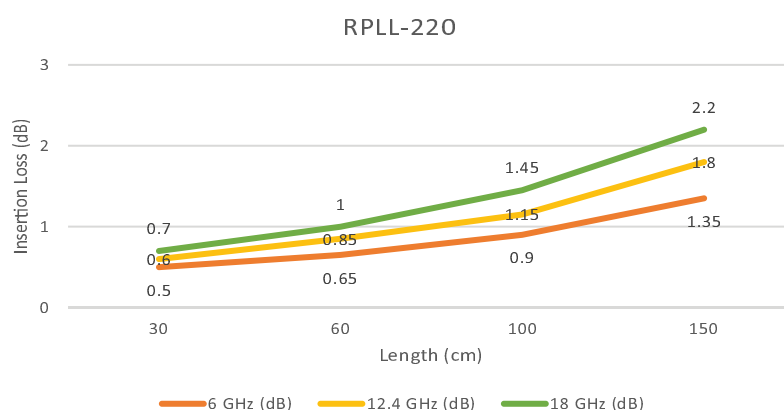
- ① CONNECTOR TYPE (example: SMA)
- ② HEAT SHRINK TUBE - $\Phi 6.5\text{mm}$
- ③ CABLE (example: RPLL-220) - $\Phi 5.7\text{mm}$
- ④ LABEL - $\Phi 6.0\text{mm}$
- ⑤ CONNECTOR TYPE (example: SMA)

Label example :

Line 1 : P/N - MM/DD/YYYY - P/L 78MS-78MS100220-04/14/2022-A
 LINE 2 : Rapidtek website <http://www.rapidtek.net>

TYPICAL PERFORMANCE

The insertion losses shown in this table include the connectors and the cable losses.

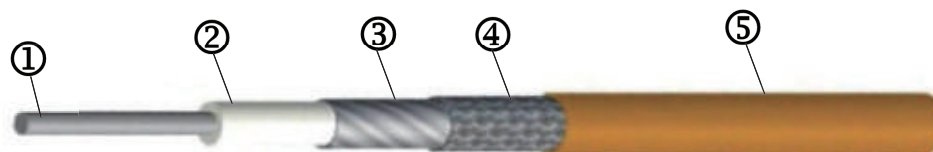


Length (cm)	30	60	100	150
6 GHz (dB)	0.5	0.65	0.9	1.35
12.4 GHz (dB)	0.6	0.85	1.15	1.8
18 GHz (dB)	0.7	1	1.45	2.2



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MECHANICAL & ELECTRICAL SPECIFICATION



Connector parts	Material	Diameter
① Inner Conductor	Silver-plated copper wire, stranded	19 / 0.3 mm
② Dielectric	Low density PTFE (extruded)	-
③ Inner shield	Silver-plated copper tape	-
④ Outer shield	Silver-plated copper braid	-
⑤ Jacket	Extruded FEP	5.7 mm

DESCRIPTION	SPECIFICATIONS
MIN BEND RADIUS	29.2 mm
WEIGHT	70 g/m
TEMPERATURE RANGE	-55°C ~ 135°C

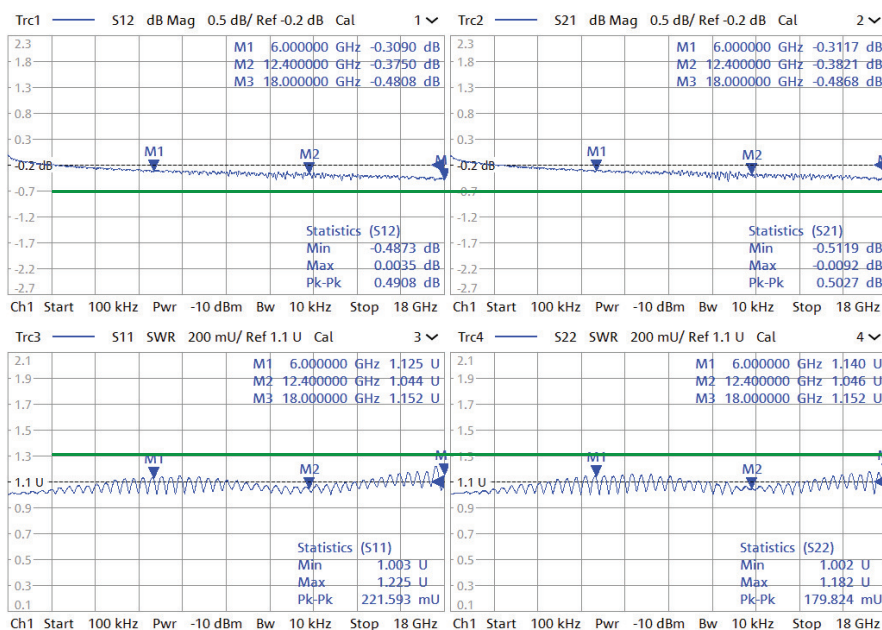
DESCRIPTION	TEST CONDITION	SPECIFICATIONS
IMPEDANCE	DC~ 18 GHz	$50 \pm 1 \Omega$
SCREENING EFFECTIVENESS	DC~ 18 GHz	$\geq 100\text{dB}$
VELOCITY OF PROPAGATION	DC~ 18 GHz	77% nom.
CAPACITANCE	DC~ 18 GHz	85 pF/m
IL STABILITY (FLEXURE)	DC~ 18 GHz	$\pm 0.3 \text{ dB}$
SIGNAL DELAY	DC~ 18 GHz	4.35 ns/m
PHASE STABILITY	DC~ 18 GHz	5 °
VSWR	DC~ 18 GHz	1.3 Max



TEST REPORTS

78MS-78MS30220

* SMA Male Straight - SMA Male Straight - 30 cm - RPLL-220 ~18 GHz



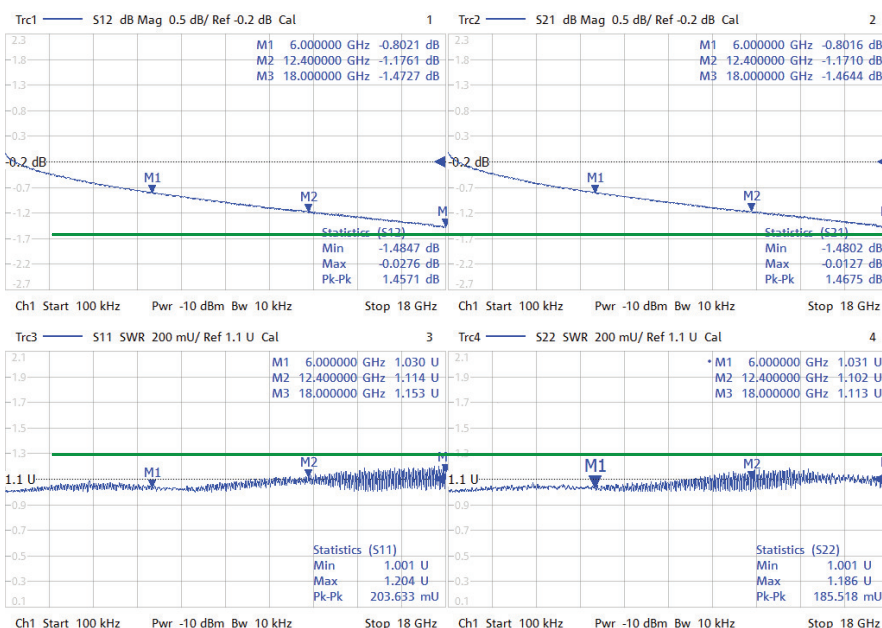
The S-parameters are shown in the specification mark below:

I/L : 0.7

VSWR : 1.3

73MS-78MS120220

* N Male Straight - SMA Male Straight - 120 cm - RPLL-220 ~18 GHz



The S-parameters are shown in the specification mark below:

I/L : 1.6

VSWR : 1.3

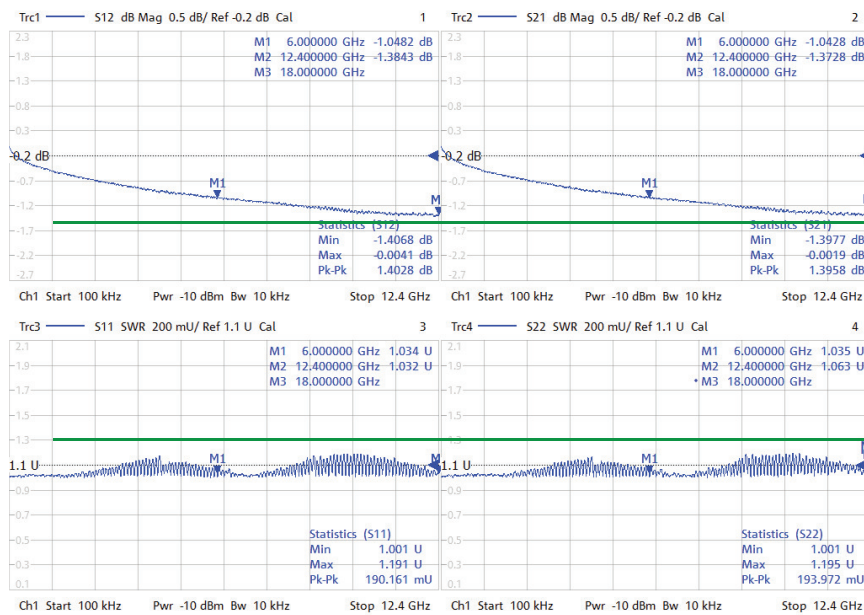


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TEST REPORTS

73MR-73MR120220

* N Male Right Angle - N Male Right Angle - 120 cm - RPLL-220 ~12.4 GHz



The S-parameters are shown in the specification mark below:

I/L : 1.45

VSWR : 1.3



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TOOLS

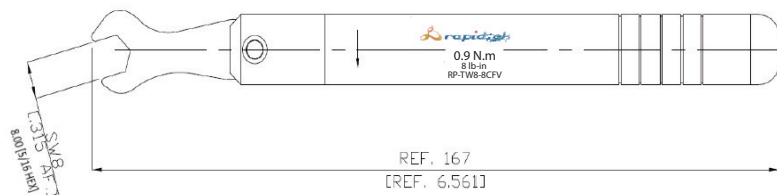
Tools could assist operators in connecting efficiently and accurately—vice versa.

SMA

RP-TW8-8CFV

Connector-type: SMA

Force: 8 lb-in

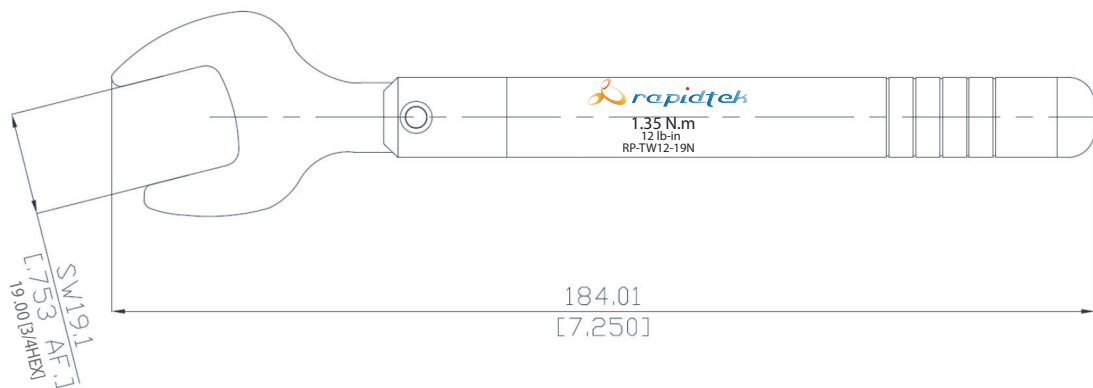


N

RP-TW12-19N

Connector-type: N

Force: 12 lb-in

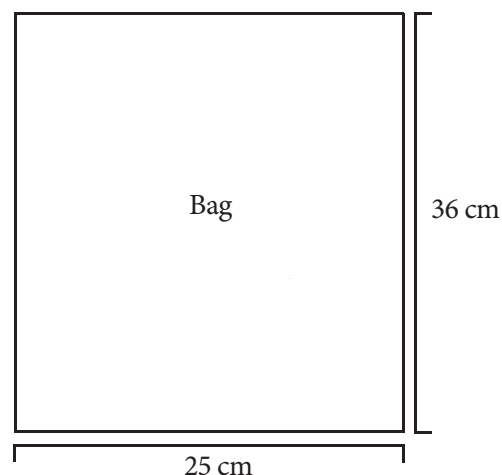
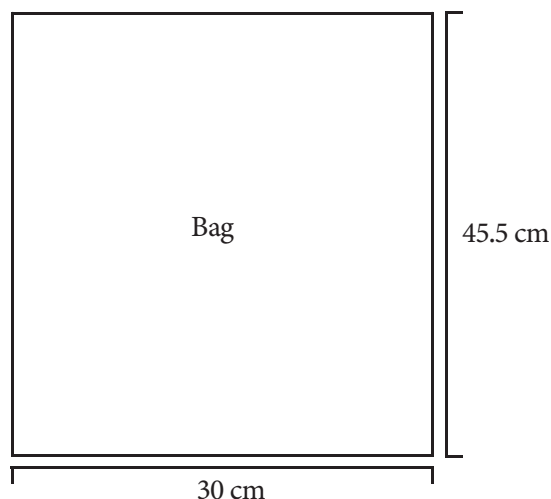


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PACKAGE

For 6 to 20 pieces and under 2 meter per piece in Length. Plastic packing bag size : 45.5 cm x 30 cm

For the quantity is less than six pieces. Plastic packing bag size: 36 cm x 25 cm.

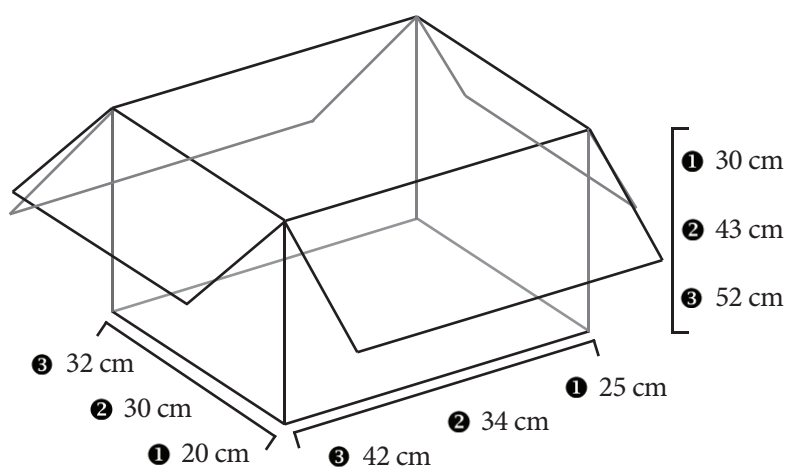


According to the quantity, the packing boxes will be divided into three sizes, including the size of large, medium, and small.

Size	Length (cm)	Width (cm)	Height (cm)	Box capacity (bag)
① Small Box	25	20	30	1 ~ 10
② Medium Box	34	30	43	11 ~ 20
③ Large Box	42	32	52	21 ~ 30

*The weight limit is below 20 kg.

Label:



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