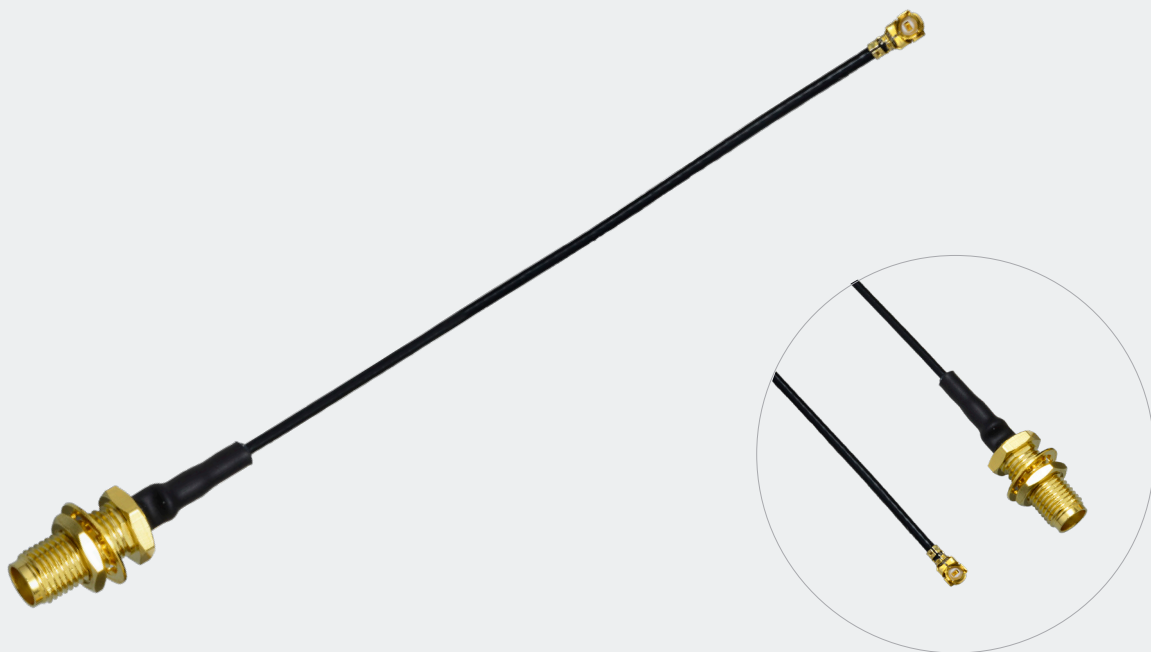


DATASHEET

CASI245-100 • CABLE ASSEMBLY



Description

- IPEX MHF1 to SMA (F) Bulkhead Straight Connector
- 100mm length, 1.37mm Outside Diameter coaxial cable

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1. Features

High reliability connectors
Low loss cable
Low insertion loss RF connectors

2. General data

2.1. SMA Jack Straight Connector

ELECTRICAL	
Impedance	50 Ω
Frequency Range	DC ~ 6GHz
Working Voltage	Max \leq 335Vrms
Dielectric Withstanding Voltage	1000 Vrms
Insulation Resistance	\geq 1000M Ω
Center Contact Resistance	\leq 10m Ω
Outer Contact Resistance	\leq 5m Ω
VSWR	\leq 1.20 @3GHz
Durability	>500 cycles
Temperature range	-55 $^{\circ}$ c to +155 $^{\circ}$ c

2.2. IPEX MHF 1 Connectors

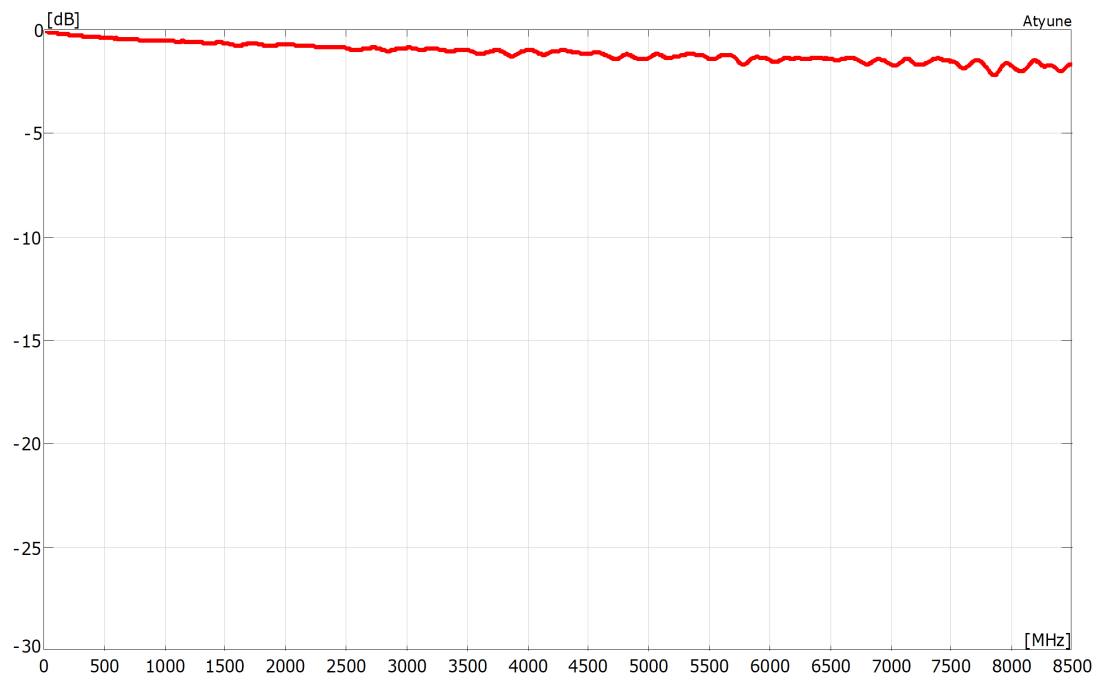
IPEX part number – 21351-112R-37	
Impedance	50Ω
Frequency Range	DC ~ 6GHz
Rate Voltage	AC 60V
Withstanding Voltage	AC 200V/minute
Insulation Resistance	$\geq 500\text{M}\Omega/\text{DC}100\text{V}$
Contact Resistance	$\leq 20\text{m}\Omega$
Temperature	-40°C to +90°C
VSWR	≤ 1.50
Durability	30 cycles

2.3. Cable Specification

ELECTEICAL Characteristics	
Cable Item	30 AWG O.D 1.37 Black
Capacitance (pF/m)	96
Impedance (ohm)	50
Velocity (%)	70
Min. Bend Radius (mm)	4
Max. Oper. Voltage (Vrms)	1000
Max. Oper. Frequency (MHz)	6000
Operating Temperature	-55°C to +200°C
VSWR	1.50
Attenuation (dB/100m)	1000 MHz – 160dB/100m 2000 MHz – 230dB/100m 3000 MHz – 290dB/100m 4000 MHz – 340dB/100m 5000 MHz – 400dB/100m 6000 MHz – 430dB/100m
Cable length	100mm

3. Cable Insertion Loss

CASI245-100

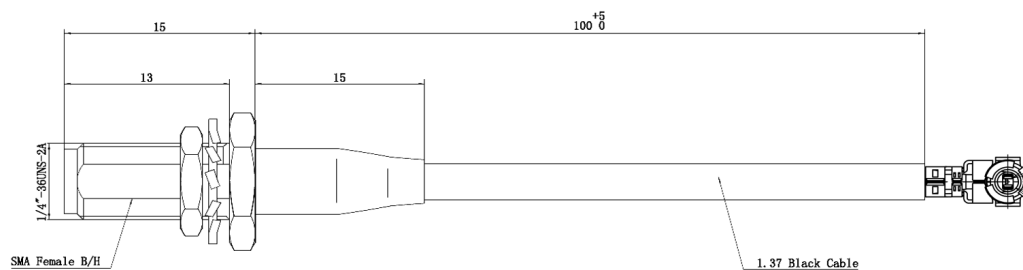


4. Part number and Description

Part Number – CASI245-100

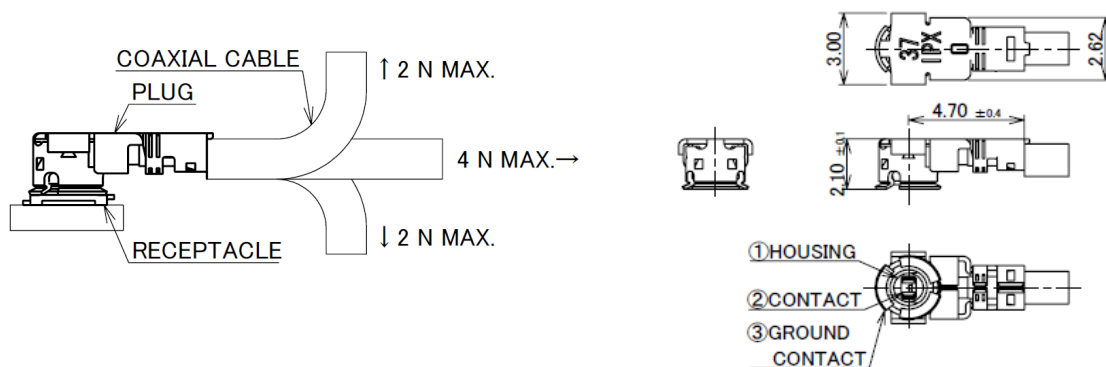
5. Drawing

5.1. Cable assembly

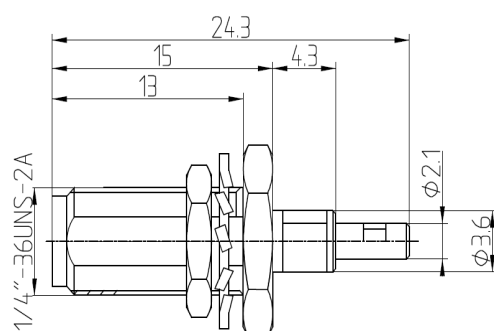


5.2. Connectors

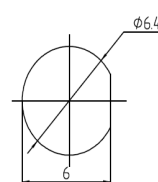
connector 1: IPEX MHF1 21351-112R-37



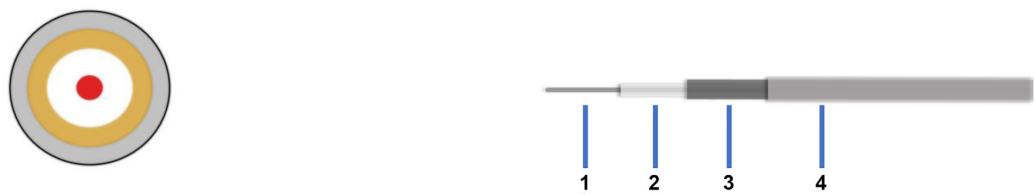
connector 2: SMA Jack Straight Connector



Recommended Mounting hole



5.3. Cable Construction Specification



Cable Cross Section

		MATERIAL	DIAMETER (MM)
1	Inner Conductor	Silver plated copper clad steel	7 x 0.102
2	Dielectric	FEP	0.88
3	Outer Conductor	Silver Plated Copper Braid	1.10
4	Jacket	FEP	1.37

5.4. Bill of Material

		MATERIAL	FINISH	QTY
1	SMA Jack Bulkhead connector	Brass	Gold	1
2	IPEX MHF1	Brass	Gold	1
3	1.37 Coaxial Cable	FEP Jacket	Black	1
4	Heat Shrink Tube	PE	Black	1
5	Washer	Brass	Gold	1
6	Nut	Brass	Gold	1

6. Hazardous Material Regulation Conformance

The connector has been tested to conform to RoHS requirements.
A certification of conformance is available from Antenova's website.

Quality statements

Antenova's products conform to REACH and RoHS legislation. For our statements regarding these and other quality standards, please see [antenova.com](https://www.antenova.com).



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Datasheet version

1.01 release APR 6th 2023

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Product designers – the details contained in this datasheet will help you to complete your embedded antenna design. Please follow our technical advice carefully to obtain optimum antenna performance.

We aim to support our customers to create high performance wireless products. You will find a wealth of design resources, calculators and case studies to aid your design on our website.

Antenova's design laboratories are equipped with the latest antenna design tools and test chambers. We provide antenna design, test and technical integration services to help you complete your design and obtain the required certifications.

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