

Amphenol LTW

- IP68 unmated
- MIL-C-39012 standard
- EMI option
- Durability: 500 cycles
- Operating temperature:
Up to $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- Salt spray: 48h

RF Radio Frequency **Connector**

**Maximizing
performance within
minimal space**



Unrivalled InterConnects for Harsh Environments

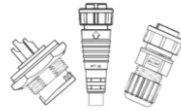
About ALTW

**3**

Production Sites
(Taiwan, China, Mexico)

**30+**

Market Applications

**90,000+**

Products

Since 1993, Amphenol LTW Technology “ALTW” lives and breathes to create, innovate, design and produce “***unrivaled interconnects for harsh environments***”. With over 300 worldwide patents, not only does ALTW offer the broadest and widest range of rugged interconnects in the industry but also customization with the mission of “Customer Satisfaction First”. Undoubtedly, ALTW is the leader in rugged interconnects, highly recognized for its uncompromising quality, short lead time, fast and tailored service and its very competitive pricing.

Regardless of the challenging environments that your products will be subject to; there is a very good chance that you will find what you are looking for with ALTW.

Unrivaled InterConnects for Harsh Environments

RF Connector

Amphenol LTW's RF connector (radio frequency connector) is an electrical connector designed to work at radio frequencies in the multi-megahertz range. RF connectors are typically used with coaxial cables and are designed to maintain the shielding that the coaxial design offers.

Available in SMA Type with various termination choice.

- ❖ IP68 unmated
- ❖ MIL-C-39012 Standard
- ❖ EMI option
- ❖ Operating temperature: Up to -40°C ~ $+105^{\circ}\text{C}$
- ❖ RoHS & REACH compliant



Product Range Overview


SUB SERIES	SMA Type
Mating Style	Screw Thread
Metal Version	✓
No. of Contacts	1
Plating of Contacts	Gold Plated
Operating Temperature	Receptacle: -40°C ~ 105°C
Operating Voltage (AC/DC)	335 Volts RMS at Sea Level
Impedance	50 Ohm
Frequency Range	0 ~ 6GHz
Breakdown Voltage	500V RMS Minimum For Connectors Using RG178
Contact Resistant	Center Contact = 3 mΩ Max. Out Contact = 2 mΩ Max.
Insulation Resistant	5,000 MΩ Min.
Receptacle	✓
VSWR	DC ~ 3.0GHz 1.3 : 1 Max. 3.0 ~ 6.0GHz 1.5 : 1 Max.
Insertion Loss	0.3dB Max. at 6GHz
Mating Cycles (Pin Contact)	500
IP Rating	IP68
Salt Spray (Connector, Mated)	48h
RF Leakage	-60dB Min. (2 ~ 3GHz)
Fasten Style of Nut	Front
Standard Cable Length	100 ~ 300mm
EMI Option	✓
RoHS Compliant	✓
REACH Compliant	✓
Certifications	MIL-C-39012
Applicable Wire Gauge	1.13mm, 1.32mm 1.37mm, RG178

Served Markets & Applications

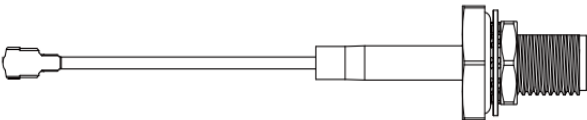
Market	Application	
LED Lighting	• Wireless Control	
Marine	<ul style="list-style-type: none"> • Navigation System: Radar, GPS, Beacon, Auto-Pilot • Communication: Radio, AIS, SCS 	• Instrumentation & Monitoring: MFD
Broadband Wireless Access	<ul style="list-style-type: none"> • Access Point: LTE, 5G • Cellular, Subscriber, and Mobile Station 	<ul style="list-style-type: none"> • Wireless Router and Mobile Backhaul • Other Communication Equipment
Industrial Automation	<ul style="list-style-type: none"> • Data Communication: Router, WiFi • Industrial PC, Counters, Controller 	
Renewable Energy	<ul style="list-style-type: none"> • Device Communication and Tracker • Power Distribution Control 	
Heavy Equipment	<ul style="list-style-type: none"> • Navigation System: GPS • Instrumentation, Control, and Diagnostic Systems • Monitoring: Display, Camera, Imaging 	<ul style="list-style-type: none"> • Safety System: Sensor, ADAS, Telematics & Tracking • Communication and Electronic Toll Systems
Autometer	<ul style="list-style-type: none"> • Metering: Water, Electric, & Gas Meter • Power and Control: Drone, Security Alarm 	• Monitoring: Telemetry, and Vehicle Tracking
Test Equipment	<ul style="list-style-type: none"> • Measuring Device: Air, Humidity, Light, Sound, Water, Image, Weight, Height • Detectors: Gas, Fire, Leak, Motion, Heat • Monitoring: Seismic (earthquake), Climatic 	<ul style="list-style-type: none"> • Weighing: Weigh, In-motion • Geodetic System: Surveying, Laser Marking, Borrescope
Railway Mass Transit	<ul style="list-style-type: none"> • Navigation: GPS • Infotainment: Broadcasting, monitoring 	• Communication: Main Controller, In-vehicle Info
Mobile Devices	<ul style="list-style-type: none"> • Drone Remote Controller • Measurement: Altimeter 	• Handheld: GPS
Transpo	<ul style="list-style-type: none"> • Navigation: GPS • Communication: Wifi, router, RFID reader 	
Automotive Diagnostics	<ul style="list-style-type: none"> • Auto-crash Detection & Notification System • Vehicle Tracking and Roadside Assistance System 	• Remote Diagnostics
UAV	• Drone: Commercial, Consumer, & Military	
Remote Video Response Center	<ul style="list-style-type: none"> • Remote Control Devices and Sensors • Detection: Auto-License Plate Recognition, Alarm 	• Identification: Face Detection, Encoders
Autonomous	<ul style="list-style-type: none"> • Navigation and Sensor: GPS & Radar Sensor • Controller: Inertial Measurement Unit 	
Communication	<ul style="list-style-type: none"> • Transmitter and Receiver Equipment • Data: Router and Switches 	<ul style="list-style-type: none"> • Base Station and Access Point • Audio: VoIP, Telephone
Rugged IT	<ul style="list-style-type: none"> • Communication Equipment • Military Notebook & Tablet 	<ul style="list-style-type: none"> • Rugged Military AR & VR • Imaging: mini-Camera, Thermal Camera

Panel Cut-Out & Part Number

SMA Type > Bulkhead

<div><p>(unit: mm)</p></div>				
Connector	Contact Gender	Ferrule Type	Part Number	Cable Type
SMA Type Female	Female	Mated Waterproof	RF5B-HFFCL8-53A1001	1.13mm
	Male		RF5B-HFMCL8-53A1001	1.13mm

SMA Type > Bulkhead with Cable Assembly

					
Connector 1	Contact Gender	Connector 2	Part Number	Cable Type	Cable Length
SMA Type Female	Female	I-PEX Type (MHF)	RF5B -53A1010-MHF801	1.13mm	100mm
			RF5B -53A1030-MHF801		300mm
	Male	I-PEX Type (MHF)	RF5C -53A1010-MHF801		100mm



Amphenol LTW

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