

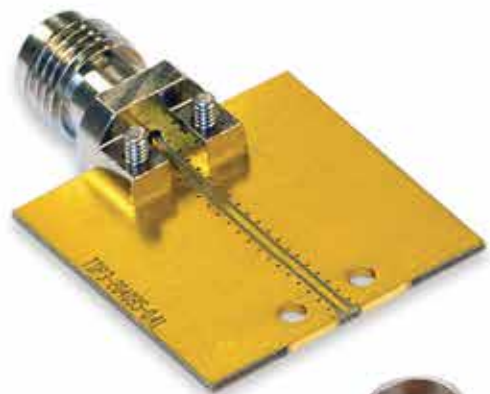


# mmWave Connectors

Coaxial Connectors & Cables  
for High Frequency

**HRS** HIROSE  
ELECTRIC  
AMERICAS

CONNECTING THE FUTURE



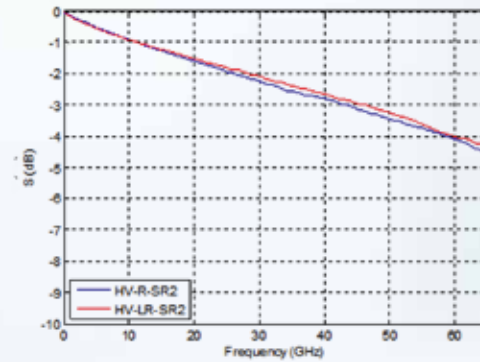
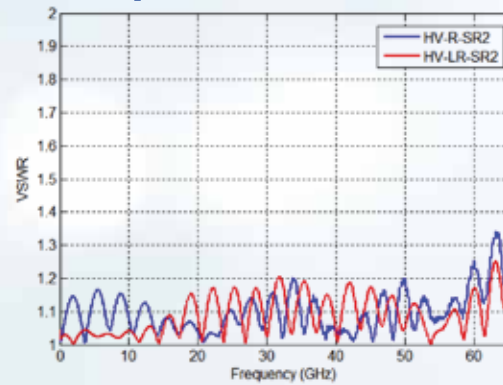




## 1.85mm Series

- Cable harnesses and receptacles supporting up to 67GHz
- IEC standard compliant (IEC 61169-32).
- Screw mount receptacles facilitate various PCB thicknesses.
- Space saving, lightweight attenuators and terminators utilizing a durable two-part contact design to alleviate angle mating stress.
- Available in Vertical and End Launch

### Receptacle:

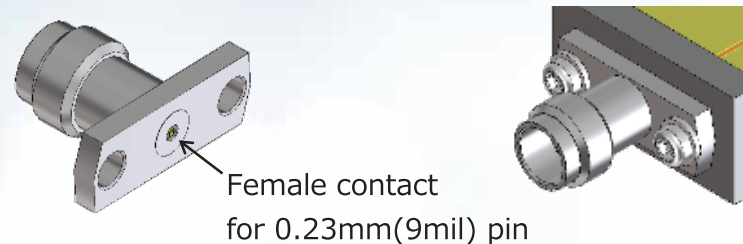


D.U. T. FOR HV-R-SR2 INCLUDES TWO HV-R-SR2 WITH PCB TRACE LENGTH 1"  
D.U. T. FOR HV-LR-SR2 INCLUDES TWO HV-LR-SR2 WITH PCB TRACE LENGTH 1"

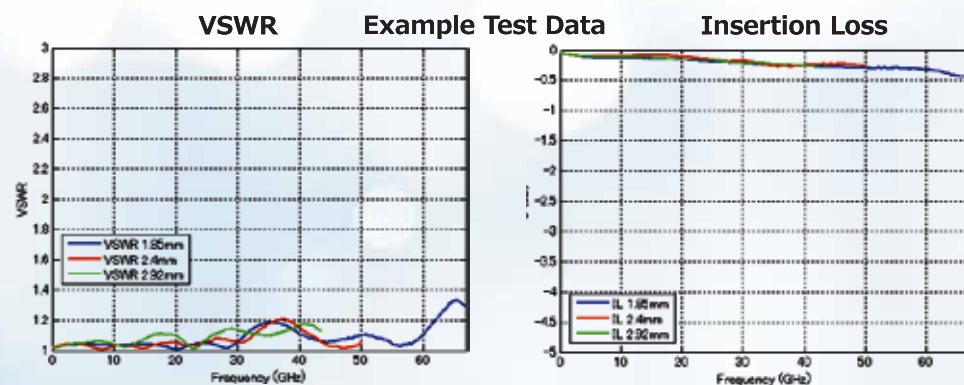
## 1.85 mmWave Field Replaceable Solutions

### New, Ruggedized Field Replaceable mmWave solutions for finished RF Modules

- Supports up to 71GHz frequency
- mmWave solutions for hermetically sealed RF modules
- Fully designed and manufactured in Japan
- Competitive, reliable performance
- Unmatched local Sales channel and technical support
- RoHS compliant



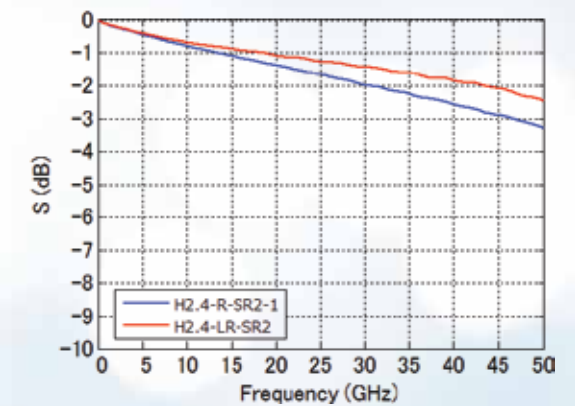
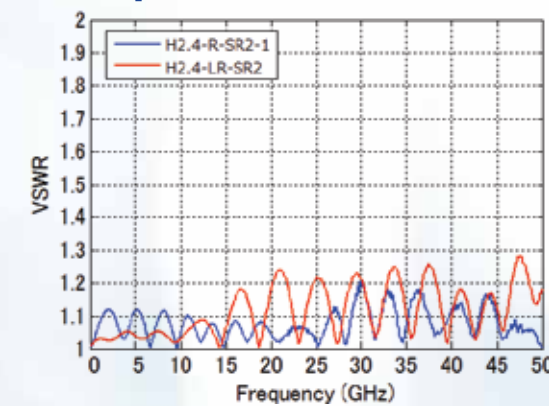
### Receptacle HV-R-FR2(10.16)/HV-R-FR2(12.22)



## 2.4mm Series

- Cable harnesses and receptacles supporting up to 50GHz
- MIL-STD-348B standard compliant
- Screw mount receptacles support various PCB thicknesses
- Space saving, lightweight attenuators and terminators utilizing a durable two-part contact design to alleviate angle mating stress
- Available in Vertical and End Launch

### Receptacle:



DUT FOR H2.4-R-SR2-1 INCLUDES TWO H2.4-R-SR2-1 WITH PCB TRACE LENGTH 1"  
DUT FOR H2.4-LR-SR2 INCLUDES TWO H2.4-LR-SR2 WITH PCB TRACE LENGTH 0.8"

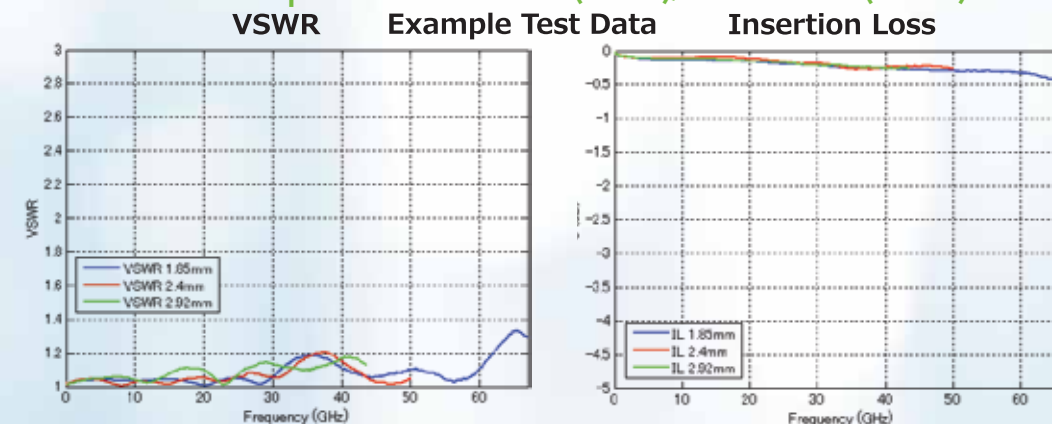
## 2.4 mmWave Field Replaceable Solutions

### New, Ruggedized Field Replaceable mmWave solutions for finished RF Modules

- Supports up to 50GHz frequency
- mmWave solutions for hermetically sealed RF modules
- Fully designed and manufactured in Japan
- Competitive, reliable performance
- Unmatched local Sales channel and technical support
- RoHS compliant



### Receptacle H2.4-R-FR2(10.16)/H2.4-R-FR2(12.22)



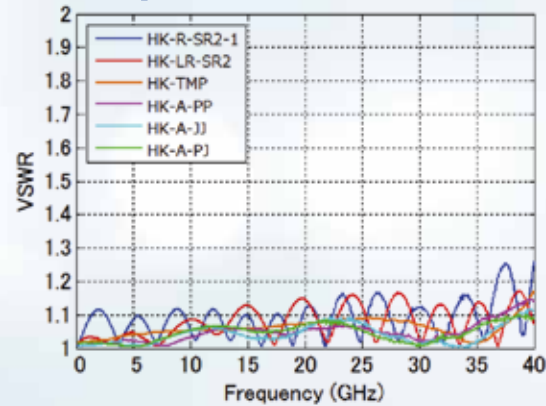




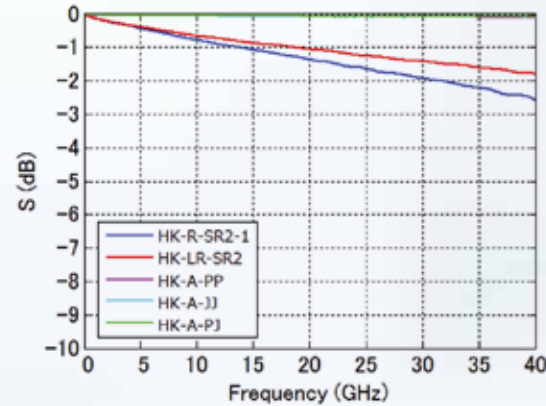
## 2.92mm Series

- Cable harnesses and receptacles supporting up to 43.5GHz
- MIL-STD-348B standard compliant
- Screw mount receptacles support various PCB thicknesses
- Space saving, lightweight attenuators and terminators utilizing a durable two-part contact
- Available in Vertical and End Launch

### Receptacle:



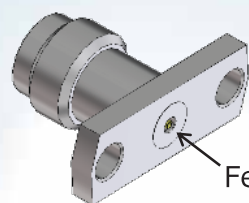
DUT FOR HK-R-SR2-1 INCLUDES TWO HK-R-SR2-1 WITH PCB TRACE LENGTH 1"  
DUT FOR HK-LR-SR2 INCLUDES TWO HK-LR-SR2 WITH PCB TRACE LENGTH 0.8"



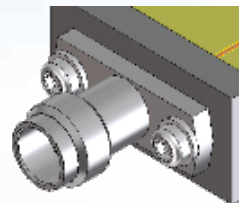
## 2.92 mmWave Field Replaceable Solutions

### New, Ruggedized Field Replaceable mmWave solutions for finished RF Modules

- Supports up to 43.5GHz frequency
- mmWave solutions for hermetically sealed RF modules
- Fully designed and manufactured in Japan
- Competitive, reliable performance
- Unmatched local Sales channel and technical support
- RoHS compliant



Female contact  
for 0.23mm(9mil) pin

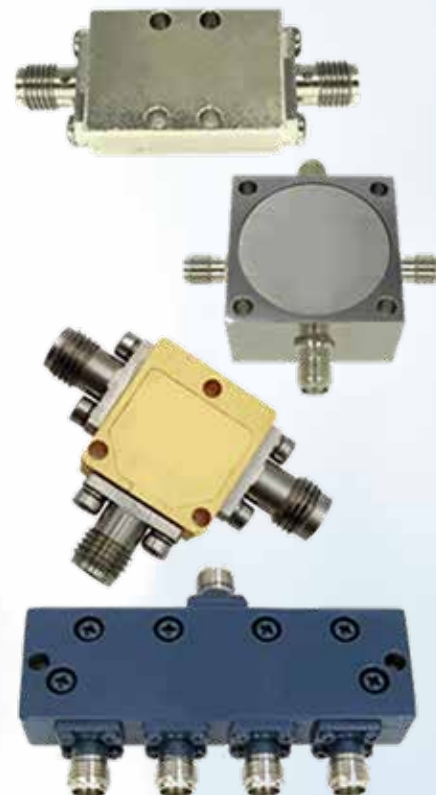
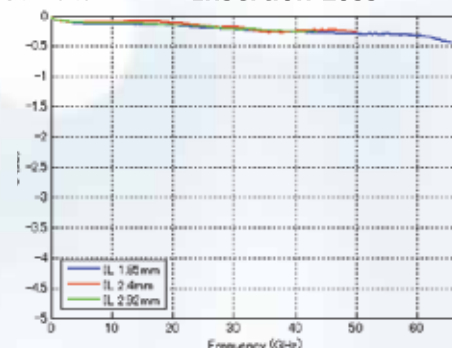
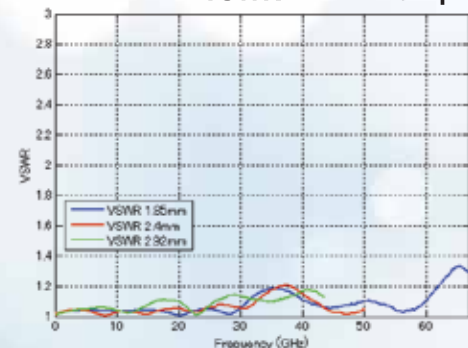


### Receptacle HK-R-FR2(10.16)/HK-R-FR2(12.22)

VSWR

Example Test Data

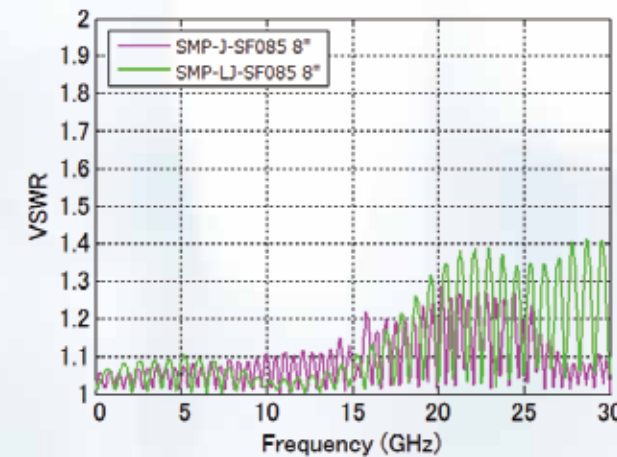
Insertion Loss



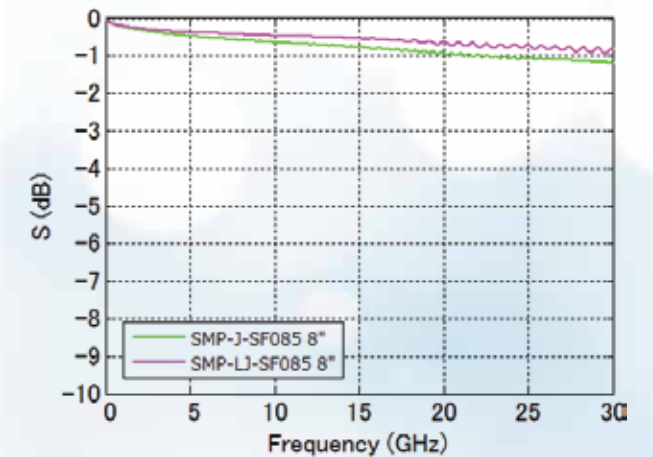
## SMP Series

- Supporting up to 40GHz
- MIL standard MIL-STD -348B.
- User friendly push on design
- Straight and right angle plug options
- Straight and right-angle PCB mount jacks
- Terminators and conversion adapter options

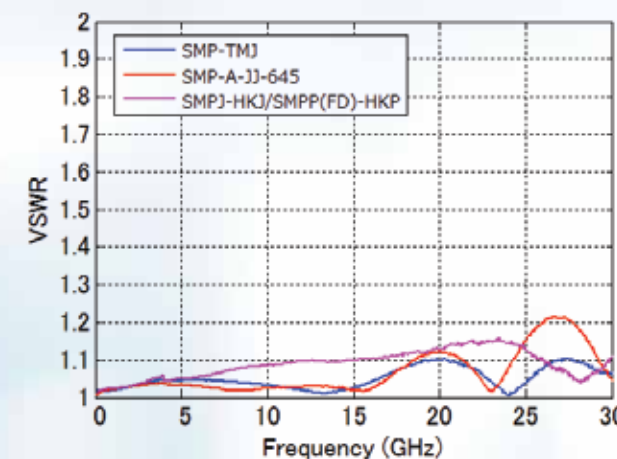
### Cable Harness:



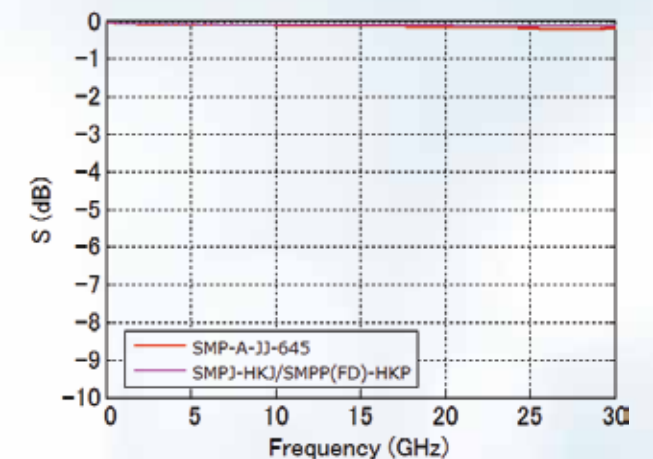
DUT FOR SMP-J-SF085 INCLUDES DOUBLE ENDED CABLE LENGTH 8" AND SMPP(SB)-HKP FOR BOTH ENDS  
DUT FOR SMP-LJ-SF085 INCLUDES DOUBLE ENDED CABLE LENGTH 8" AND SMPP(SB)-HKP FOR BOTH ENDS



### Terminator & Adapter:



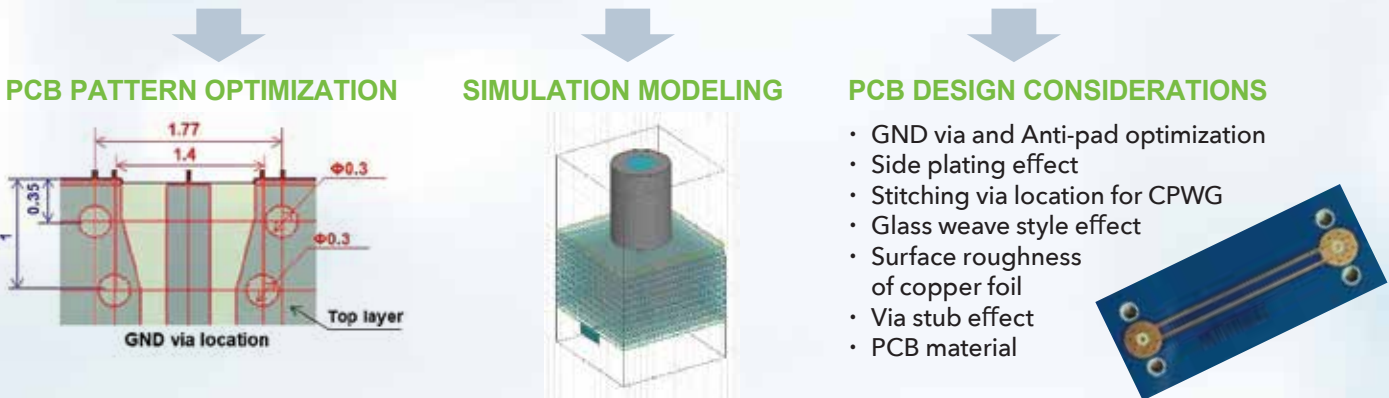
DUT FOR SMP-TMJ INCLUDES SMP-TMJ AND SMPP(SB)-HKP  
DUT FOR SMP-A-JJ-645 INCLUDES SMP-A-JJ-645 AND SMPP(SB)-HKP FOR BOTH ENDS



## Hirose Delivers on Many Levels

- Responsive, Local Support Teams
  - Technical, Engineering Level Support
  - Best of Class Logistics, Inventory, Lead Time Management
- Industry leading small form factors
- Best of Class Signal Integrity Performance
- Wide range of related connector solutions.
- Competitive price, top tier support, performance!

## US Based FAE, SI Engineering Teams



## Hirose Mechanical, Electrical Advantages

Edge Launch

Edge Launch Solutions

Series (2.92, 2.4, 1.85mm)	Hirose	Comp A	Comp B	Comp C
Form Factor Width (smaller)	☆☆☆	☆☆	☆☆	☆
VSWR (lower)	☆☆☆	☆	☆	☆
Local Engineering Support				

Vertical Stripline Solutions

Vertical Stripline Series (2.92, 2.4, 1.85mm)	Hirose	Comp A	Comp B	Comp C
Form Factor Width (smaller)	☆☆☆	☆☆	☆☆☆	☆☆☆
VSWR (lower)	☆☆☆	☆☆	☆☆☆	☆☆
Local Engineering Support				

Vertical Microstrip Solutions

Vertical Microstrip Series (2.92, 2.4, 1.85mm)	Hirose	Comp A	Comp B	Comp C
Form Factor Width (smaller)	☆☆	☆☆☆	☆☆	☆☆
VSWR (lower)	☆☆☆	☆☆	☆☆☆	☆
Local Engineering Support				

## Hirose Logistics Advantage

- In house, distributed manufacturing sites in Japan and Asia, with full piece part, materials, to finished assemblies
- Advanced lead time management, both from Hirose factory allocation, build to forecast, as well as...
- Aggressive N.America customer support planning with our RF distribution partners in the Western hemisphere.
- Test & Measurement often requires quick deliveries to meet your engineering builds...Hirose knows this, and has multiple proven success stories in working as partners to ensure key customer forecasts and out of cycle connector needs are available, in stock, including reserved inventories.

## Hirose RF Family Solutions

FL Series  
(Invented By Hirose)



U.FL Series

RF Switches  
(best of class floating tolerances)



MS180 Series

Micro Board-to-Board/FPC/Wire  
(supporting RF, video, 5G)



DF81 Series

BM46 ("5G") Series

2.92, 2.4, 1.85mm Wave  
(Rugged, Reliable)



mmWave Series

BNC75  
(Video Apps)



BNC75 Series

MMC, MMCX  
(pop on test solutions)



MMCX Series

## Technical Support

- Local, US based factory FAEs from RF Group. Japan
- San Jose based local hire, Signal Integrity Engineering team experienced in latest mm wave, 5G, RF system design optimization.
- Hirose offers engineering level support beyond just the connector sale...





# mmWave Connectors



Series	Type	HRS Product Name	Product Number CL	Note	Screw Size for PCB Mount	Attached Screw Length
1.85mm -65GHz	Horizontal	HV-LR-SR2	338 0018 0 00	Edge Mount	No. 0-80UNF	-
		HV-LR-SR2(11)	338 0018 0 11	Edge Mount w/Screws	No. 0-80UNF	6.35mm (1/4 Inch)
		HV-LR-SR2(12)	338 0018 0 12	Edge Mount w/Screws	No. 0-80UNF	4.76mm (3/16 Inch)
	Vertical	HV-R-SR2-SA	338 0030 0 00	Vertical mount, Special Grade	No. 0-80UNF	-
		HV-R-SR2-SA(15)	338 0030 0 15	Vertical mount w/Screws, Special Grade	No. 0-80UNF	6.35mm (1/4 Inch) & 4.76mm (3/16 Inch)
	Terminator	HV-TMP-1	353 0025 0 00	Male Terminator.	-	-
	Field Replaceable	HV-R-FR2(10.16)	338 0032 0 00	Female Straight Panel Receptacle	No. 0-80UNF	-
		HV-R-FR2(12.22)	338 0016 0 00	Female Straight Panel Receptacle	No. 0-80UNF	-
2.4mm -50GHz	Horizontal	H2.4-LR-SR2	338 0603 0 00	Edge Mount	No. 0-80UNF	-
		H2.4-LR-SR2(11)	338 0603 0 11	Edge Mount w/Screws	No. 0-80UNF	6.35mm (1/4 Inch)
		H2.4-LR-SR2(12)	338 0603 0 12	Edge Mount w/Screws	No. 0-80UNF	4.76mm (3/16 Inch)
	Vertical	H2.4-R-SR2-SA	338 0029 0 00	Vertical mount, Special Grade	No. 0-80UNF	6.35mm (1/4 Inch) &
		H2.4-R-SR2-SA(15)	338 0029 0 15	Vertical mount w/Screws, Special Grade	No. 0-80UNF	4.76mm (3/16 Inch)
	Terminator	H2.4-TMP	-	-	-	-
	Field Replaceable	H2.4-R-FR2(10.16)	338 0024 0 00	Female Straight Panel Receptacle	No. 0-80UNF	-
		H2.4-R-FR2(12.22)	338 0017 0 00	Female Straight Panel Receptacle	No. 0-80UNF	-
2.92mm -43.5GHz	Horizontal	HK-LR-SR2	338 0079 0 00	Edge Mount	No. 0-80UNF	-
		HK-LR-SR2(11)	338 0079 0 11	Edge Mount w/Screws	No. 0-80UNF	6.35mm (1/4 Inch)
		HK-LR-SR2(12)	338 0079 0 12	Edge Mount w/Screws	No. 0-80UNF	4.76mm (3/16 Inch)
	Vertical	HK-R-SR2-SA	338 0028 0 00	Vertical mount, Special Grade	No. 0-80UNF	-
		HK-R-SR2-SA(15)	338 0028 0 15	Vertical mount w/Screws, Special Grade	No. 0-80UNF	6.35mm (1/4 Inch) & 4.76mm (3/16 Inch)
	Adapter	HK-A-PJ	338 0097 0 00	Male to Female	-	-
		HK-A-PP	338 0099 0 00	Male to Male	-	-
		HK-A-JJ	338 0098 0 00	Female to Female	-	-
	Terminator	HK-TMP	353 0014 0 00	Male Terminator	-	-
	Field Replaceable	HK-R-FR2(10.16)	338 0025 0 00	Female Straight Panel Receptacle	No. 0-80UNF	-
		HK-R-FR2(12.22)	338 0031 0 00	Female Straight Panel Receptacle	No. 0-80UNF	-
SMPM -65GHz	Adapter	SMPM-A-JJ-532	338 0500 0 00	Female to Female	-	-
		SMPMP(FD)-HVP	311 0419 5 00	Full Detent Male to 1.85 Male	-	-
		SMPMP(SB)-HVP	311 0420 4 00	Smooth Bore Male to 1.85 Male	-	-
		SMPMJ-HVJ	311 0421 7 00	Female to 1.85 Female	-	-
SMP -30GHz	Horizontal	SMP-LPR(FD)-SMT-1	338 1105 0 00	Straight Plug Receptacle Full Detent	-	-
		SMP-LPR(LD)-SMT-1	338 1107 0 00	Straight Plug Receptacle Limited Detent	-	-
		SMP-LPR(SB)-SMT-1	338 1108 0 00	Straight Plug Receptacle Smooth Bore	-	-
	Vertical	SMP-PR(FD)-SMT-1	338 1102 0 00	Right Angle Plug Receptacle Full Detent	-	-
		SMP-PR(LD)-SMT-1	338 1103 0 00	Right Angle Plug Receptacle Limited Detent	-	-
		SMP-PR(SB)-SMT-1	338 1104 0 00	Right Angle Plug Receptacle Full Detent	-	-
	Adapter	SMP-A-JJ-645	338 1106 0 00	Female to Female	-	-
		SMPP(FD)-HKP	311 0199 0 00	Full Detent Male to 2.92 Male	-	-
		SMPP(SB)-HKP	311 1001 0 00	Smooth Bore Male to 2.92 Male	-	-
		SMPJ-HKJ	311 0013 0 00	Female to 2.92 Female	-	-
	Terminator	SMP-TMJ	353 0024 0 00	Female Terminator	-	-



CONNECTING THE FUTURE

For additional information please go to  
[https://www.hirose.com/en/product/en/pr/mmwave/board\\_test/](https://www.hirose.com/en/product/en/pr/mmwave/board_test/)

STAY CONNECTED



CONNECTING THE FUTURE

# mmWave INNOVATION



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Tampa, FL 33606  
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RoHS - We are committed to the development and manufacture of world-class products without sacrificing the health of people & the environment. Hirose manufactures products that are compliant with RoHS directives.



Scan the QR code for a digital brochure and additional information on mmWave Connectors

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