

SENSORVIEW

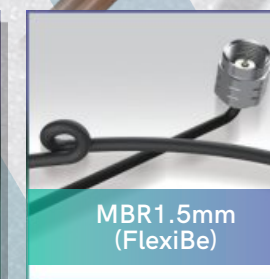
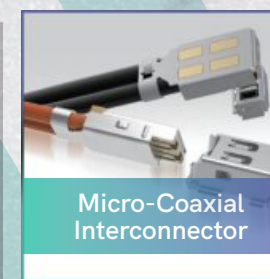
We make your **RF** the Best.

Your trusted partner
for **5G** and **BEYOND-5G**

01	Company
02	Business
03	Microwave Cable
04	Micro-Coaxial Interconnector
05	Antenna
06	60GHz soldering Antenna

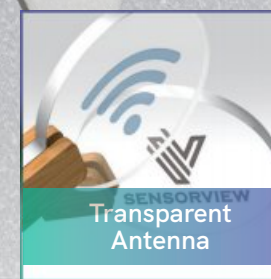
- Microwave Precision Cable
- Ultra-miniaturized Coaxial Cable / Connector for SMT
- Minimum Bend Radius 1.5mm 67GHz cable

Connectivity



Antenna

- Installation Antennas for mobile carrier
- Antenna Modules
- Test Antennas



Your trusted partner
for 5G and BEYOND-5G

Vision

“We make your RF the BEST”

Mission

“We design and manufacture high performance RF Interconnector and Antenna. RF designer, test engineers can leverage our products to make their RF performance best on time.”

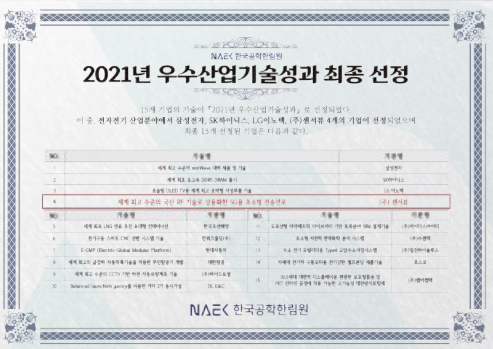
Core Capability

mmWave-oriented RF passive design

mmWave-beneficial material fusion

Expert in manufacturing and testing up to 110GHz

Awards



Selected as '2021 Industrial Technology Achievements' by NAEK



Selection of innovative companies under the supervision of the Financial Services Commission for 'innovative enterprises representative 1000.'

Accomplishments

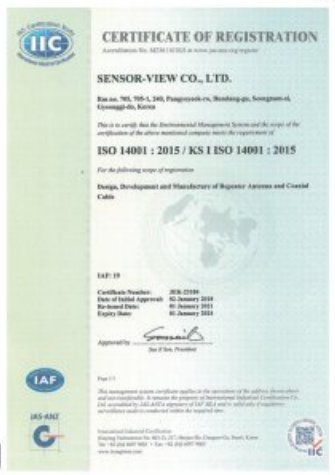
Sensorview is discovering and developing various element technologies to lead the mmWave(5G) market. We are actively applying for patents/designs/trademarks for technical protection.

Domestic registration		Domestic registration		TOTAL
registration	application	registration	application	
8	67	30	60	165

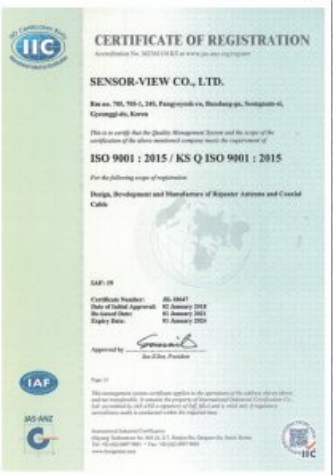


Certifications

ISO 14001
Environment



ISO 9001
Quality



SENSORVIEW Industries

Company that delivers total solution platform service through providing material technology + design technology and fusion platform between technology to technology for 5G smart connected devices.



5G Infra Solution

Ultra Wideband Antenna for in-building solution. Antenna technologies for high gain.

In-building coverage



Ultra Wide Band (617-960 / 1710-2690 / 3500 / 5800MHz)
Perfectly Camouflaged Antenna (Complaint Free)
Cost Reduction - 2 in 1 Concept (Antenna + Information Sign)



Coverage Optimization Technology for Indoor Cell. This technology provide cell-coverage solution for indoor. General service operator test and build a cellcoverage. There are massive conditions because any indoor circumstance is not similar.

5G Network



Our patented antenna design, "Gain+" performs higher gain and wider beam steering range compare with the conventional antennas.

- Improving cell coverage
- Increasing network efficiency
- Decreasing CAPEX and OPEX

In-building coverage



Our patented antenna design, "Gain+" performs higher gain and wider beam steering range compare with the conventional antennas.

- Improving cell coverage
- Increasing network efficiency
- Decreasing CAPEX and OPEX



Our Multi-Gang cable series are designed in an ultra compact size, carrying the signal with super low loss and near-zero EMI.



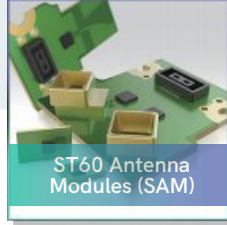
5G Wireless Device

TLIA® solution can be used in various IT application with huge market potential!

5G Laptop



Our Multi-Gang cable series are designed in an ultra compact size, carrying the signal with super low loss and near-zero EMI.



High Speed(6.25Gbps), Low Power-consumption(mW) and short distance(5~200mm) 60GHz Wireless connector. High-Gain + Gain-Flatness + Improved-Isolation with Miniaturized Form Factor.

Smart TV



High Speed(6.25Gbps), Low Power-consumption(mW) and short distance(5~200mm) 60GHz Wireless connector. High-Gain + Gain-Flatness + Improved-Isolation with Miniaturized Form Factor.



5G Smartphone



Our Multi-Gang cable series are designed in an ultra compact size, carrying the signal with super low loss and near-zero EMI.



High Speed(6.25Gbps), Low Power-consumption(mW) and short distance(5~200mm) 60GHz Wireless connector. High-Gain + Gain-Flatness + Improved-Isolation with Miniaturized Form Factor.



Our Flex-S® (multi-line cable) and TLIA® (Transmission Line Integrated Antenna) are composed by low loss materials and are designed by patent protected technologies. These are vital components in mmWave devices offering super low loss and high quality performance.



Our miniature size multi-band antenna is an optimized solution for 5G AUT in test & measurement and will minimize your chamber sizes, decrease budgets and maximize your test performances.



We offer high quality coaxial cable assemblies with excellent performance.

- Low Insertion Loss
- Phase Stable vs Temperature
- Insertion Loss Stable vs Bend
- Phase Stable vs Bend
- Low VSWR

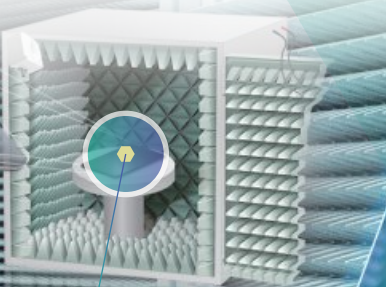


Our Phase Matched adapter meets MIL STD 348 and we are manufacturing a wide range of adapters within / between series. Matched adapters have the same nominal connector mating reference plane to reference plane length.



Our connectors are designed and fabricated to guarantee optimized performance of the end products. We can provide the optimum transition for low return loss. Specially we can tailor connectors to specific equipment and application needs.

Semiconductor Test Equipment



mmWave OTA solution



Our miniature size multi-band antenna is an optimized solution for 5G AUT in test & measurement and will minimize your chamber sizes, decrease budgets and maximize your test performances.



We offer high quality coaxial cable assemblies with excellent performance.

- Low Insertion Loss
- Phase Stable vs Temperature
- Insertion Loss Stable vs Bend
- Phase Stable vs Bend
- Low VSWR



Our Phase Matched adapter meets MIL STD 348 and we are manufacturing a wide range of adapters within / between series. Matched adapters have the same nominal connector mating reference plane to reference plane length.

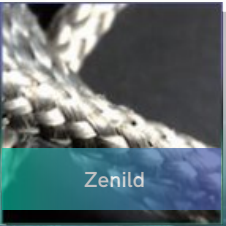
Test & Measurement

COMPACT OTA TESTING
Total size Reduction
SENSORVIEW ANTENNA

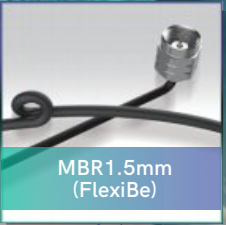
Aerospace & Defense

Military / Airplane, EMI Shielding Solution

MISSILE / Aircraft



Our unique braiding technology, "Zenild®" provides superior shielding effectiveness VS copper wire and offers significant weight savings. Silver Plated Fiber Weights over 60% savings VS copper wire at equal volume Excellent.



Bendable* Microwave Cable Wireless Connector.

- Minimum Bend Radius 1.5mm
- DC to 67GHz
- Low-loss, EMI shielding
- MIL-STD satisfactory
- MBR1.5mm, Outer diameter 2mm

AESA radar system



Our patented antenna design, "Gain+" performs higher gain and wider beam steering range compare with the conventional antennas.

- Improving cell coverage
- Increasing network efficiency
- Decreasing CAPEX and OPEX



Our Phase Matched adapter meets MIL STD 348 and we are manufacturing a wide range of adapters within / between series. Matched adapters have the same nominal connector mating reference plane to reference plane length.

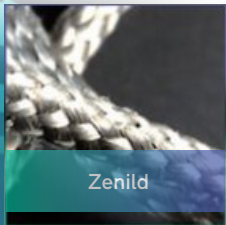


Our connectors are designed and fabricated to guarantee optimized performance of the end products. We can provide the optimum transition for low return loss. Specially we can tailor connectors to specific equipment and application needs.

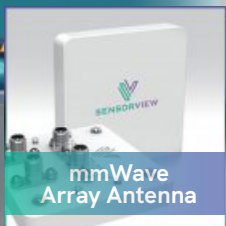
Connected Car based on 5G

Connected Car based on 5G - Light Weight, EMI Shield

Autonomous Vehicles



Our unique braiding technology, "Zenild®" provides superior shielding effectiveness VS copper wire and offers significant weight savings. Silver Plated Fiber Weights over 60% savings VS copper wire at equal volume Excellent.



Our patented antenna design, "Gain+" performs higher gain and wider beam steering range compare with the conventional antennas.

- Improving cell coverage
- Increasing network efficiency
- Decreasing CAPEX and OPEX



01. FlexStable[®]
Microwave Cable

02. FlexiBe[®]
Minimum Bend Radius
1.5mm Cable Assembly

03. MG210/MG215M
Multi/Micro-Coaxial
Dual-port RF Interconnector

04. Armor
Microwave Cable
Excellent Flexibility

05. Gannector[®]
Hybrid Connector



Your trusted partner
for 5G and BEYOND-5G

FlexStable[®] Microwave Cable

SENSORVIEW FlexStable[®] microwave cable assembly series offer excellent performance providing various benefits to your specific needs.

Freq.
DC to 67GHz

Low-loss

VP (Velocity of propagation) 77 to 84%

Phase-stable
(vs. bending)

phase-matching
under 1ps.

Cable Design & Core Material

SENSORVIEW designs and produces the cable & connector solutions for microwave & millimeterwave systems by incorporating inhouse material technologies which guarantee excellent electrical performance versus flexure and temperature variation.

Aeroflon[®] Dielectric

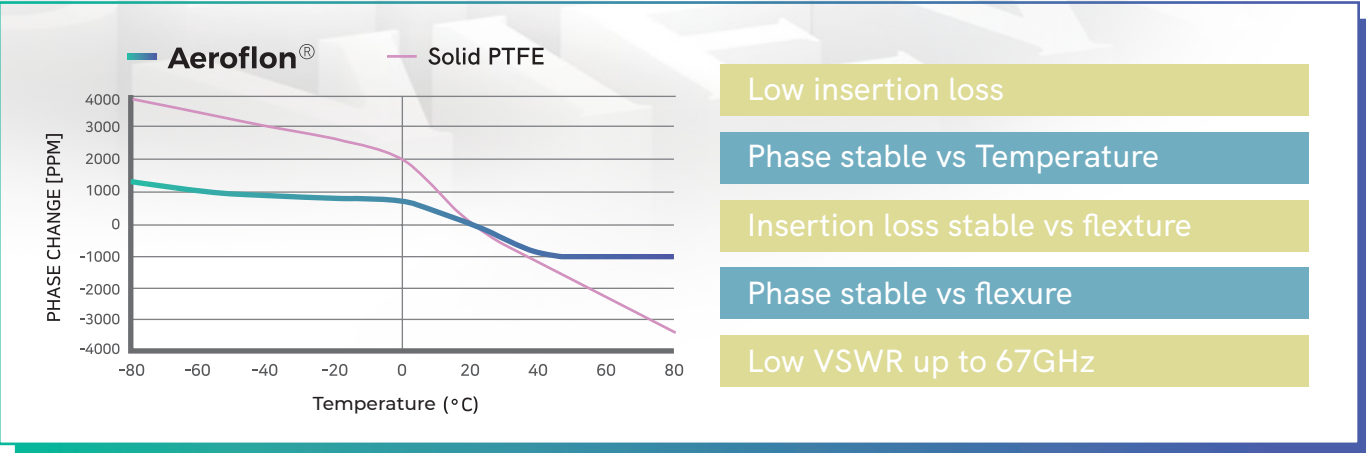
For low loss and stable electrical performance

Sensorview has developed a new PTFE dielectric, named Aeroflon[®], demonstrating Dk (dielectric constant) about 1.6~1.7 and Df (loss tangent) about 0.0001@10GHz, which enables to achieve much lower loss in property of Microwave & mmWave coaxial cable compared to general PTFE cable.

Sensorview's Aeroflon[®] has a smaller "Knee" in its CTE (Coefficient of Thermal Expansion) profile around room temperature and remains the same even when exposed to extreme temperature, therefore, it is excellent to apply in harsh environment.



PTFE Knee Graph



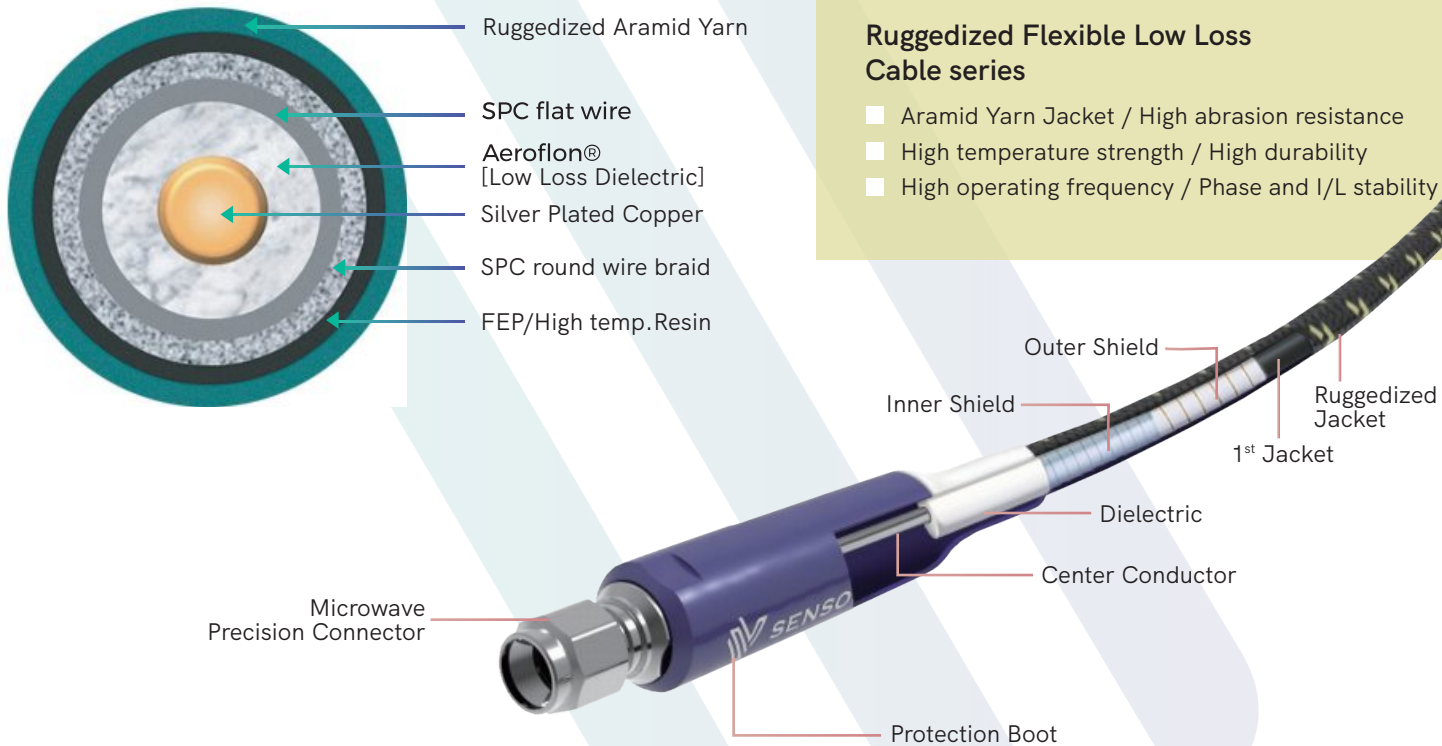
Relative matching

Relative matching matches phase between two (which is one pair) or more cable assemblies which belongs to one another. Therefore, it is manufactured as sets with relative phase tolerance. Sensorview's default phase matching tolerance is $\pm 0.3^\circ/\text{GHz}$. (e.g. an 18GHz cable can be phase matched to $\pm 5.4^\circ$)

Absolute matching

Absolute matching provides the matches in its assemblies to be at an absolute electrical length (Group delay). Any cable of a set can be replaced and manufactured in different location using any test equipment brand.

Structures



Typical Applications

- Bench-top testing
- High throughput RF production testing
- Portable analyzers
- Test rack systems
- Vector Network Analyzers
- Scalar Network Analyzers
- Antenna ranges
- Anechoic chambers
- Thermal vacuum chambers
- Nearfield scanners
- Wireless telecommunication module testing
- ElectroMagnetic Compliance Testing
- Automated Test Equipment
- High speed digital test
- 5G test and interconnection



FlexStable® Microwave Cable

SENSORVIEW FlexStable® microwave cable assembly series offer excellent performance providing various benefits to your specific needs.

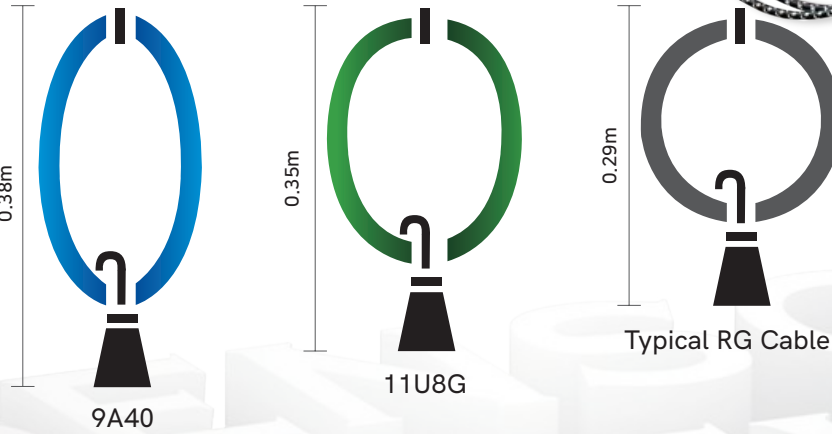
SUPER FLEXIBLE

DUT and condition

Tested cable : FlexStable(9A40), UltraRG(11U8G), Typical RG cable

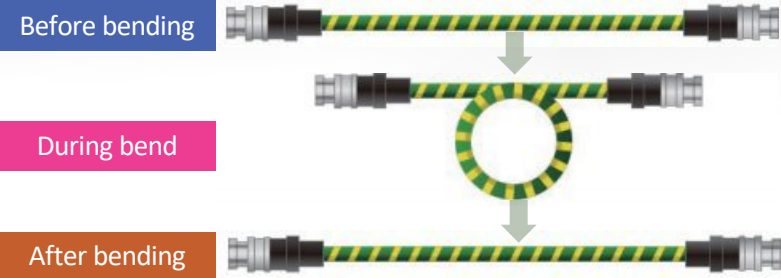
Test results

Test condition : 1meter, Weight 520gram, 25°C



More drooped the weights are, more flexible cable is. FlexStable shows the longest droop, which means it affects little force to connector and DUT, accordingly more stable and easy to use in a lab and bench, also convenient to install in a chamber.

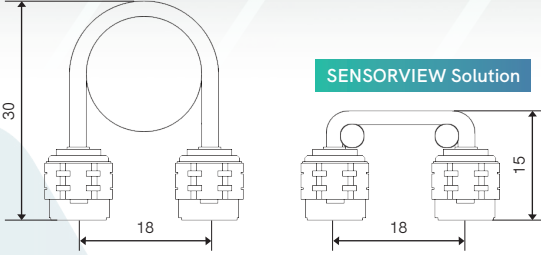
PHASE STABILITY (VS. BENDING)



'Insertion loss' and 'phase change' are measured under a bended condition using a 'Minimum Bend Radius' mandrel.



- Freq. DC to 67GHz
- Low-loss EMI shielding
- MIL-STD satisfactory
- MBR1.5mm Outer diameter 2mm



- Save attenuation using MBR 1.5mm (Minimum Bend Radius 1.5mm)
- Automated Test Equipment



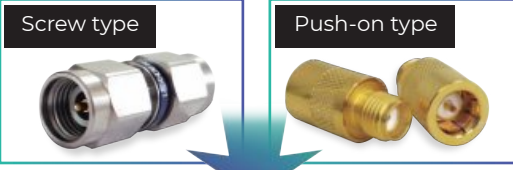
- Save space of system using MBR 1.5mm (Minimum Bend Radius 1.5mm)
- Vulnerable to vibration of SR (Semi-Rigid) cable and difficult routing and assembly
- face PCB board and Flights etc.

Armor Microwave Cable



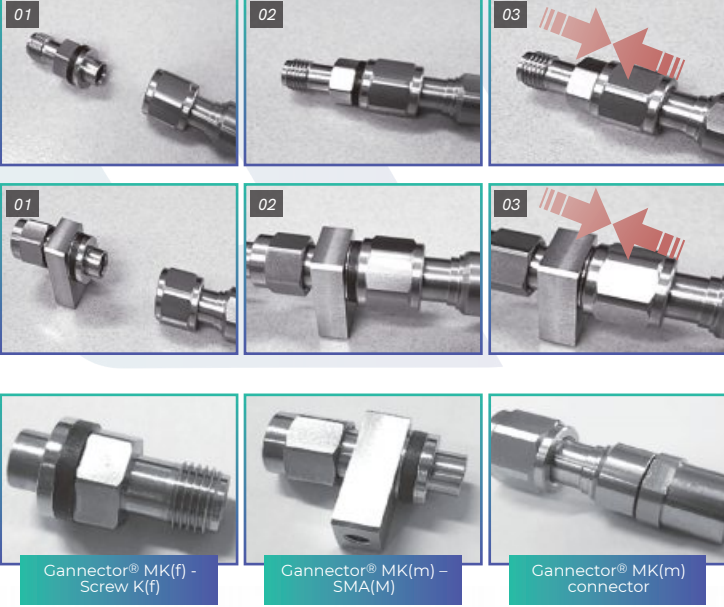
- Excellent Flexibility
- High Screening Effectiveness (>100dB@18GHz)
- High Crush Resistance : 81.6kgf/cm (457lbf/in)

Gannector® Microwave Cable



Hybrid Connector - Gannector®

- Excellent contact resistance
- Tool-less (No torque wrench required)
- High frequency (up to 20GHz) : S, X, Ku band
- Quick-Lock



DC ~ 8GHz Series

Spec.



- Impedance (Nominal) : 50 ±1 Ohm
- Velocity Propagation : 77% (Nominal)
- RF Leakage : -85dB
- Minimum Bend Radius [mm] : 25
- Phase Stability vs Flexture (Typical) : Max. 2° @ 8GHz
- Loss Stability vs Flexture (Typical) : ±0.05 dB

Figure	Product	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Insertion Loss [dB/m]		Average Power Rating [Watt] @ 25°C at Sea Level	
						8GHz		8GHz	
	11A8G	Stranded	5.8 ± 0.1	53.3	-50 ~ 135	-1.07		178	
	11S8G		5.2 ± 0.1	49.9					
	11F8G		4.9 ± 0.1	53.3					
	11U8G		5.2 ± 0.1	53.3					
	11A8GD	Solid	5.8 ± 0.1	54	-50 ~ 135	-1.03		198	
	11S8GD		5.2 ± 0.1	50.6					

Available Connector : SMA(ST, RA), N(ST,RA)



DC ~ 18GHz Series

Spec.



- Impedance (Nominal) : 50 ±1 Ohm
- Velocity Propagation : 77% (Nominal, 13x26, 9S18G, 9F18GD) | 84% (Nominal, 23F18WD)
- RF Leakage : -100dB (13x26) | -85dB (9S18G, 9F18GD)
- Minimum Bend Radius [mm] : 30 (13x26) | 15 (9S18G) | 20 (9F18GD)
- Phase Stability vs Flexture (Typical) : Max. 10° @ 18GHz (13x26, 9S18GD, 23F18WD) | Max. 18° @ 18GHz (9F18GD)
- Loss Stability vs Flexture (Typical) : ±0.1 dB

Figure	Product	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Insertion Loss [dB/m]		Average Power Rating [Watt] @ 25°C at Sea Level	
						18GHz		18GHz	
	13A26	Stranded	6.7 ± 0.1	81.4	-50 ~ 135	-1.07		164	
	13S26		6.2 ± 0.1	73.4					
	13F26		5.7 ± 0.1	56.2					
	9S18G		4.2 ± 0.1	34.4					
	9F18GD	Solid	3.8 ± 0.1	33	-50 ~ 125	-1.65		81	
	23F18WD		7.68 ± 0.1	130					

Available Connector : SMA(ST), N(ST), TNC(ST)



DC ~ 26.5GHz Series

Spec.



- Impedance (Nominal) : 50 ± 1 Ohm
- Velocity Propagation : 77% (Nominal)
- RF Leakage : -100dB
- Minimum Bend Radius [mm] : 30
- Phase Stability vs Flexure (Typical) : Max. 10° @ 26.5GHz
- Loss Stability vs Flexure (Typical) : ±0.1 dB

Figure	Product	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
						26.5GHz	26.5GHz
	13A26	Stranded	6.7 ± 0.1	81.4	-50 ~ 135	-1.55	136
	13S26		6.2 ± 0.1	73.4			
	13F26		5.7 ± 0.1	56.2	-50 ~ 125		

DC ~ 33GHz Series

Spec.



- Impedance (Nominal) : 50 ± 1 Ohm
- Velocity Propagation : 77% (Nominal)
- RF Leakage : -100dB
- Minimum Bend Radius [mm] : 25
- Phase Stability vs Flexure (Typical) : Max. 10° @ 33GHz
- Loss Stability vs Flexure (Typical) : ±0.1 dB

Figure	Product	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
						33GHz	33GHz
	11A33	Stranded	5.8 ± 0.1	58.9	-50 ~ 135	-1.85	98
	11S33		5.3 ± 0.1	52.9			
	11A33D	Solid	5.8 ± 0.1	59.2			
	11S33D		5.3 ± 0.1	53.2			

Available Connector : HFSMA(ST), 3.5mm(ST)



Available Connector : HFSMA(ST)



DC ~ 40GHz Series

Spec.



- Impedance (Nominal) : 50 ± 1 Ohm
- Velocity Propagation : 77% (Nominal)
- RF Leakage : -100dB
- Minimum Bend Radius [mm] : 25
- Phase Stability vs Flexure (Typical) : Max. 14° @ 40GHz
- Loss Stability vs Flexure (Typical) : ± 0.1 dB

Figure	Product	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
						40GHz	40GHz
	9A40	Stranded	5.6 ± 0.1	48.6	-50 ~ 135	-2.60	59
	9S40		5.0 ± 0.1	44.4			

DC ~ 50GHz Series

Spec.



- Impedance (Nominal) : 50 ± 1 Ohm
- Velocity Propagation : 77% (Nominal)
- RF Leakage : -100dB
- Minimum Bend Radius [mm] : 25
- Phase Stability vs Flexure (Typical) : Max. 15° @ 50GHz
- Loss Stability vs Flexure (Typical) : ± 0.1 dB

Figure	Product	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
						50GHz	50GHz
	7R50D	Solid	5.8 ± 0.1	53.3	-50 ~ 135	-3.90	45
	7A50D		4.6 ± 0.1	34.1			

Available Connector : 2.4mm, 2.92mm(ST, SH)



Available Connector : 2.4mm(ST)



DC ~ 67GHz Series

Spec.



- Impedance (Nominal) : 50 ± 1 Ohm
- Velocity Propagation : 77% (Nominal, 5R67D, 5A67D)
- RF Leakage : -100dB (5R67D, 5A67D)
- Minimum Bend Radius [mm] : 20 (5R67D, 5A67D)
- Phase Stability vs Flexure (Typical) : Max. 19° @ 67GHz (5A67D) | Max. 14° @ 67GHz (5R67D)
- Loss Stability vs Flexure (Typical) : ± 0.1 dB

Figure	Product	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
						67GHz	67GHz
	5R67D	Solid	6.7 ± 0.1	63	-50 ~ 85	-6.4	46
	5A67D		3.6 ± 0.1	25			28

FlexiBe®

Spec.

- Impedance (Nominal) : 50 ± 1 Ohm
- Velocity Propagation : 77% (Nominal)
- RF Leakage : -100dB
- Minimum Bend Radius [mm] : 1.5 (SFPS27D1) | 2.54 (SFPS27D2)

Figure	Product	Center Conductor Type	Overall Outer Diameter [mm]	Weight [g/m]	Temperature Range [°C]	Insertion Loss [dB/m]	Average Power Rating [Watt] @ 25°C at Sea Level
						67GHz	67GHz
	SFPS27D1	Solid	2 ± 0.1	12.6	-40 ~ +120	-11	-3.35
	SFPS27D2		2 ± 0.1	13.1			

Available Connector : 1.85mm(ST)











21

Available Connector : 2.92mm(SH), 1.85mm(SH)











22

MULTI/MICRO-COAXIAL Dual-ports RF Interconnector MG210



5G Antenna module for
Small cell & base station

What is 5G Antenna module?

Communication equipment (small-cell and baseband station) manufacturers have difficulties in designing mmWave antenna module yet. For this reason, **Qualcomm** provides mmWave antenna modules, not chipset only.

Where is Sensorview products?

MG210 is mounted on **Qualcomm's** mmWave Antenna module.

MG210 has low-loss, low EMI leakage traits with multi-gang micro interconnector. **Coaxial lines are combined in a connector** with 50 ohm matched thoroughly. Slide-mating interface secures anti-rotation and stability vs. vibration.

Main applications are CPE, Small cell, Laptop, IF signal transmission.

Features

- Space Efficiency :**
Minimize footprint size by 2 ganged connector
- Power Efficiency :**
Low loss coaxial cable (DK < 2.0)
- Mechanically Stable :**
Strong resistance to X-Y-Z moving and vibration
- Minimized Crosstalk :**
Each contact is electrically/mechanically separated
- Minimized RF Interference :**
Full - enclosed mating by ground shell

MG210 Products

- Receptacle :**
(P/N : MG210RE02)
- Plug to plug cable assembly :**
(P/N : MGC102XX)
- Plug to Female SMAs cable assembly :**
(P/N : TRA2PA5)
- Plug to Male SMAs cable assembly :**
(P/N : TRA2PA6)
- Tweezer for Mating and unmating a plug :**
(P/N : GJSZZA5)

Application



CPE / Hotspot
(Customer
Premises
Equipment)



Femtocell /
Small cell



Laptop



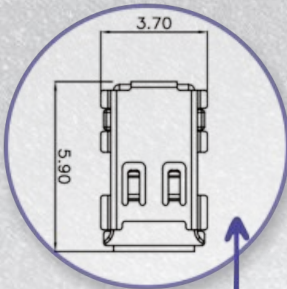
Receptacle

Horizontal (Sliding)
Mating



Plug cable assembly

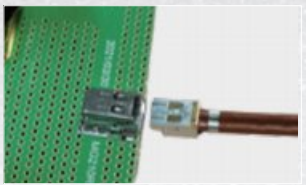
[Receptacle]



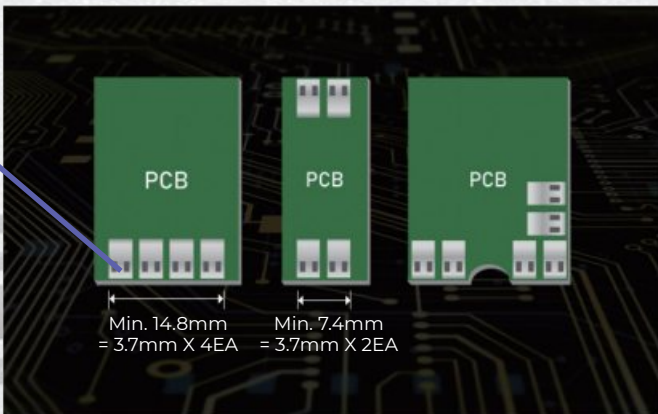
Mating direction
(Sliding type)

SV AWG32
= O.D 0.88mm

[Plug cable assembly]



MGC10216 Mated into MG210RE02



Footprint(land pattern) area of multiple MG210 receptacles

Specification		MG210
Ports (RF Signal)		2ports (can assemble with1port connector)
Frequency		DC to 10GHz (Can support up to 15GHz)
Mating direction		Horizontal (Sliding)
Size (X,Y)	{ PCB pad }	3.7 x 5.9mm
Size (X,Y)	{ Top view }	3.7 x 5.9mm
Size (Z)	{ Mate height }	2mm
Cable	Diameter	0.88mm
Insertion loss	(@10GHz/200mm)	-1.7dB
VSWR	(DC to 10GHz)	Max 1.5
Crosstalk	(DC to 10GHz)	Typical < - 45dB

MULTI/MICRO-COAXIAL Dual-ports RF Interconnector MG215M



What is 5G M.2 card?

Laptop, CPE manufacturers need easy 'plug and play' card to realized 5G mmWave. For this reason, OEM of **Global top fabless RF chip company** manufactures M.2 cards by **Global top fabless RF chip company's** reference design.

Where is Sensorview products?

MG215M is listed on recommended components in **Global top fabless RF chip company** reference design.

MG215M has low-loss, low EMI leakage, dual-ports micro coaxial RF interconnector. Two Coaxial lines are in a connector with 50 ohm matched thoroughly. **Vertical-mating** interface secures anti-rotation and stability vs. vibration.

Main applications are CPE, Laptop, M.2 Card RF or IF(Intermediate Frequency) transmission.

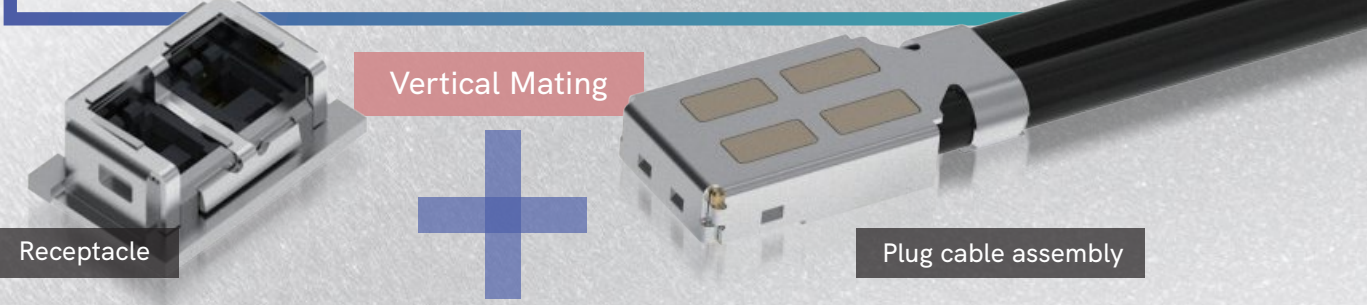
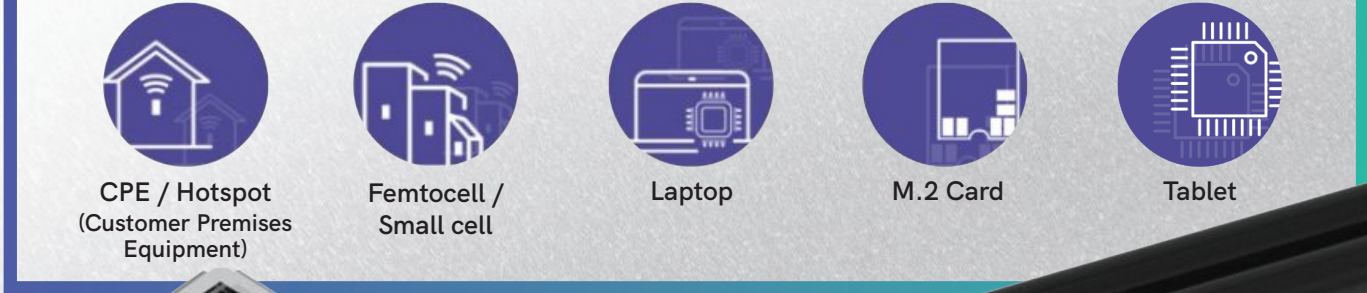
Features

- Footprint / Mating height :** Minimize footprint and mating height with dual-ports
- Power Efficiency :** Low loss coaxial cable (DK < 2.0)
- Minimized Crosstalk :** Each contacts are electrically/mechanically separated
- Minimized RF Interference :** Enclosure is fully shielded by ground shell

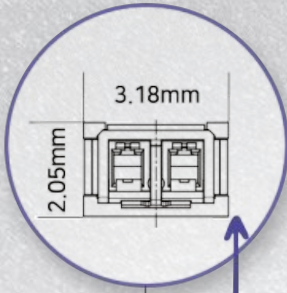
MG215M Products

- Receptacle :** (P/N : MG215MRE02)
- Plug to plug cable assembly :** (P/N : MGC152XX)
- Plug to Female SMAs cable assembly :** (P/N : TRA2P01)
- Plug to Male SMAs cable assembly :** (P/N : TPA2PA3)
- Tweezer for Mating and unmating a plug :** (P/N : GJSZZA7)

Application



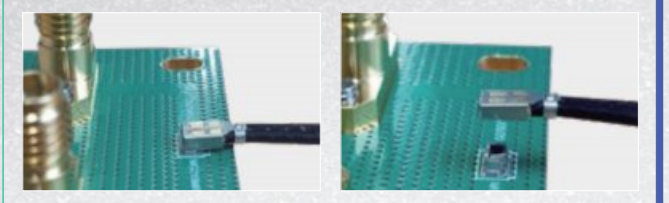
[Receptacle]



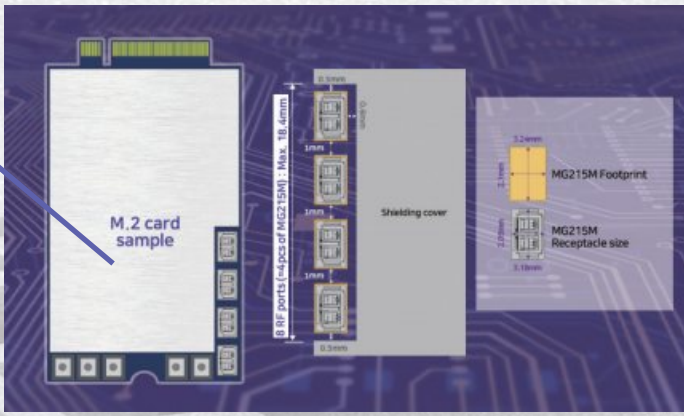
Mating direction (Top-Down Type)

SV AWG30 = O.D 1.1mm

[Plug cable assembly]



Example _ Antenna modules



Footprint(land pattern) area of multiple MG215M receptacles

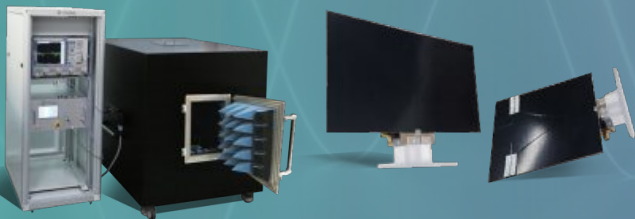
Specification		MG215M
Ports (RF Signal)		2ports (can assemble with1port connector)
Frequency		DC to 15GHz
Mating direction		Vertical (Top-down)
Size (X,Y)	{ PCB pad }	3.1 x 2.0mm
Size (X,Y)	{ Top view }	3.1 x 2.0mm
Size (Z)	{ Mate height }	1.4mm
Cable	Diameter	1.1mm
Insertion loss	(@10GHz/200mm)	-1.35dB
VSWR	(DC to 15GHz)	Max 15
Crosstalk	(DC to 15GHz)	< - 50dB

We make your
RF the BEST


Your trusted partner
for 5G and BEYOND-5G

Antenna 

For
Sub6
For
mmWave

	[For Sub6]	[For mmWave]
[Test & Measurement]	600MHz - 9GHz  OTA Chamber Wide Band Antenna	24GHz - 48.5GHz  26/28/39GHz band antenna Smart phone chip module Horn Antenna Lens Antenna
[In-building]	698 - 960MHz / 1710 - 2690MHz / 3.5GHz / 5.8GHz  Transparent Antenna (SISO) Transparent Antenna (MIMO) Disk Type Antenna (SISO/MIMO)	28GHz (Optimized by request)  Beamforming Antenna (@W/O chip) Wide beam scanning Antenna



SMFinder® High-end mmWave Antenna

**Stable & Accurate
Measurement**

SMFinder® type antennas promise
stable & accurate measurement
for relative DUT performance.

Application



Lab & Bench
Test



OTA
Shield Box

Phase and Gain
Adjustable

Light-Weight

High Reliable
Performance

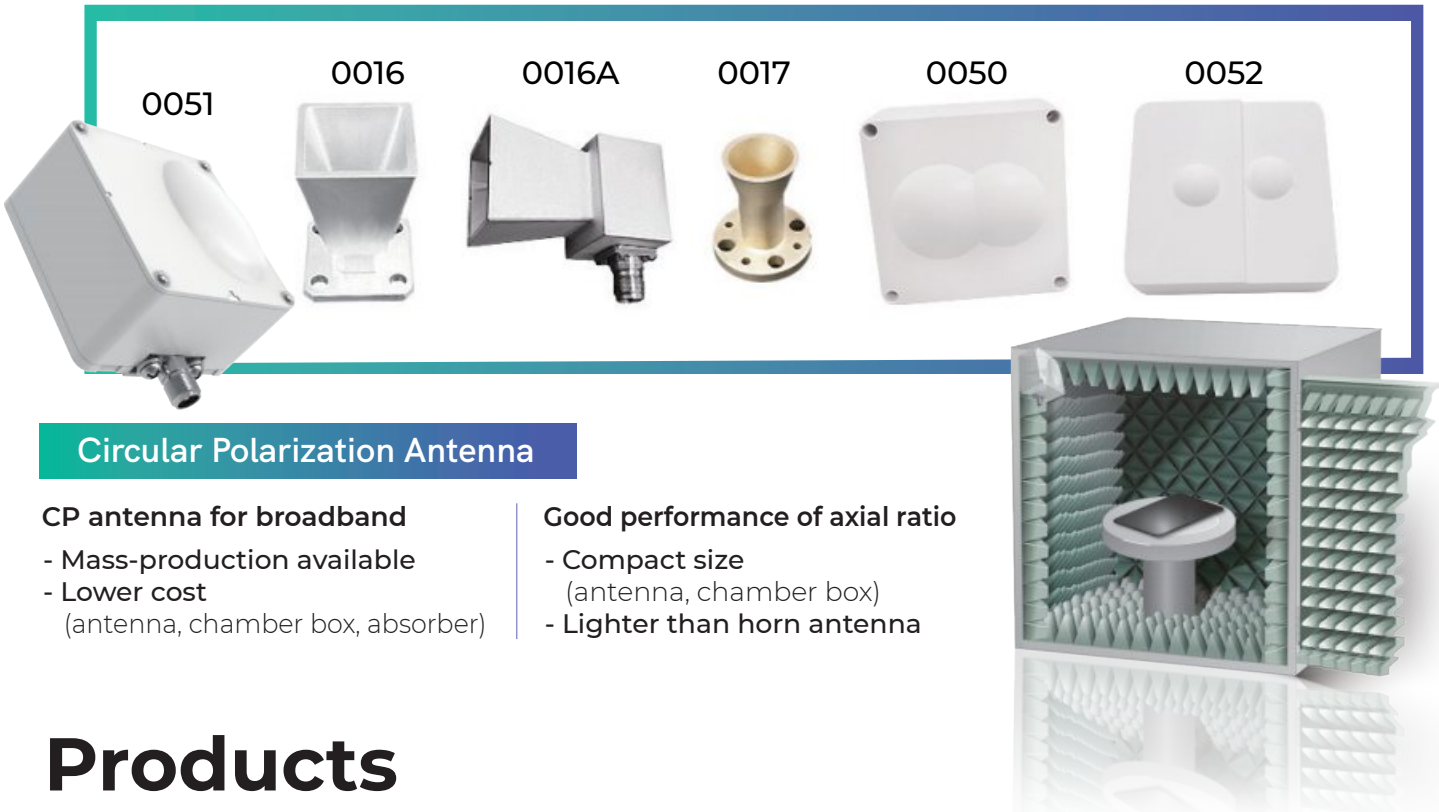
24 to 48GHz /
55 to 67 GHz

Products

Figure	Product	Frequency [GHz]	Gain [dBi/dBic]	Polarization	Size [WxHxD] / [mm]	Connector Type
	0015-01	24.0-29.5	10	Vertical & Horizontal	30(@) X 45	2.92mm
	0015A	24.0-40.5	15	Vertical & Horizontal	35(@) X 80	2.4mm
	0015B (Type 1)	24.0-40.5	13	Vertical	17 X 17 X 25	2.92mm
	0015B (Type 2)	24.0-40.5	13	Vertical	17 X 18 X 33	2.92mm
	0015C	24.0-48.5	15	Vertical & Horizontal	42 X 42 X 60	2.4mm
	0015D	24.0-48.5	15	Vertical	34 X 24 X 45	2.4mm
	0015E	24.0-40.5	15	Vertical & Horizontal	52(@) X 123	2.92mm

COMPACT **OTA** TESTING

The purpose of SMFinder series is highly efficient antenna for compact OTA testing.

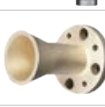


Circular Polarization Antenna

CP antenna for broadband
- Mass-production available
- Lower cost
(antenna, chamber box, absorber)

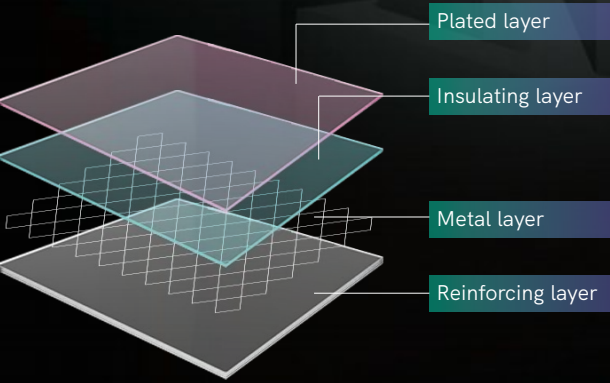
Good performance of axial ratio
- Compact size
(antenna, chamber box)
- Lighter than horn antenna

Products

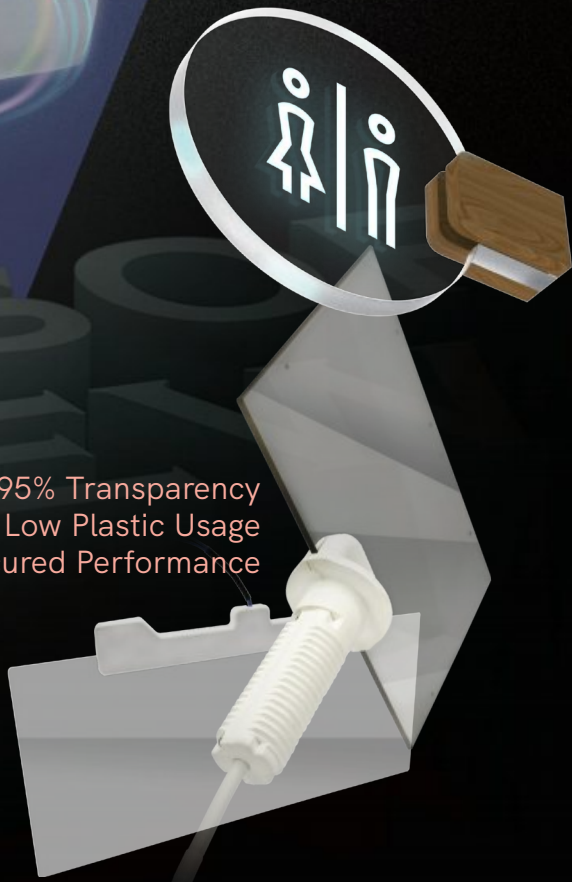
Figure	Product	Frequency [GHz]	Gain [dBi/dBic]	Polarization	Size [WxHxD] / [mm]	Connector Type
	0016	24.2-43.5	13	Circular	18 X 15 X 24	WR 28
	0016A	24.4-43.5	13	Circular	21 X 18 X 35	2.4mm
	0016B	24.2-48.5	14	Circular	18 X 20 X 41	2.4mm
	0016C	24.2-48.5	10.3	Circular	11 X 14 X 24	2.4mm
	0017	57-67	15	Circular	15(@) X 21	WR 15
	0013A	24.2-29.5	10	Circular	27 X 27 X 14	2.92mm
	0050	26.5-29.5 / 37.5-40.5	11/12	Circular	42 X 42 X 22	2.92mm
	0051	24-26.5 / 26.5-29.5 / 37.5-40.5	11/11/12	Circular	42 X 42 X 27	2.92mm
	0052	24-26.5 / 26.5-29.5 / 37.5-40.5 / 40.5-43.5	9/9/9/9.5	Circular	42 X 42 X 11	2.4mm

Transparent Antenna

The most Suitable Antenna solution for In-building network in new era.



95% Transparency
'ESG' Low Plastic Usage
Secured Performance



Broadband performance for various service

Ultra-thin
(only 7 mm thickness)
antenna for indoor

Reliable antenna performance

Eco-friendly installation

SF141 type (pig tail) available
N-type or 4.3-10 mini-DIN connector available



Description	Type	Frequency [GHz]	Gain [dBi]	Availability
Transparent	SISO	0.824~0.96 / 1.71~2.17 / 2.3~2.69 / 3.4~3.7	2.0 / 3.0 / 3.0 / 3.0	Available now
	MIMO	0.698~0.96 / 1.71~2.17 / 2.3~2.69 / 3.4~3.7	2.0 / 3.0 / 3.0 / 3.0	Available now
	SISO	0.617~0.96 / 1.71~2.69 / 3.4~3.7 / 5.8	2.0 / 3.0 / 3.0 / 3.0	Available now
	MIMO	0.617~0.96 / 1.71~2.69 / 3.4~3.7 / 5.8	2.0 / 3.0 / 3.0 / 3.0	Available now
	SISO	1.71~2.69 / 3.4~3.7 / 5.8	3.0 / 3.0 / 3.0	Available now (for Window)
	MIMO	1.71~2.17 / 2.3~2.69 / 3.4~4.	3.0 / 3.0 / 3.0	Available now (for Window)

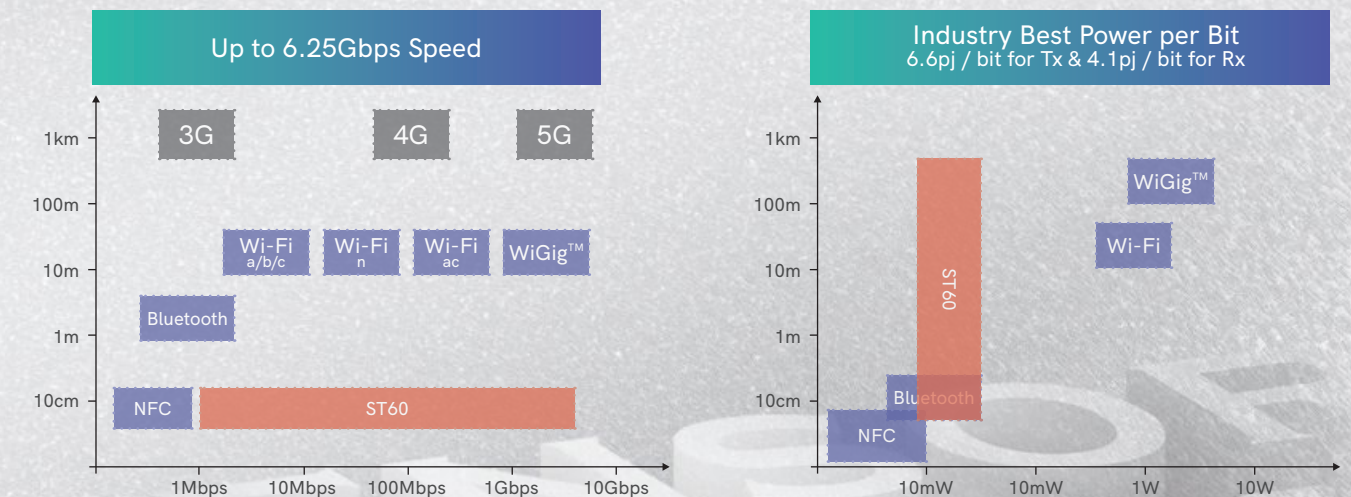
Description	Type	Frequency [GHz]	Gain [dBi]	Availability
UFO	SISO	0.698~0.96 / 1.71~2.69 / 3.4~3.7 / 5.8	3.0 / 4.0 / 4.0 / 4.0	Available now (Ceiling type)
	MIMO	0.698~0.96 / 1.71~2.69 / 3.4~3.7 / 5.8	3.0 / 4.0 / 4.0 / 4.0	Available now
	SISO	0.698~0.96 / 1.71~2.69 / 3.4~3.7 / 5.8	3.0 / 4.0 / 4.0 / 4.0	Available now (Wall type / Side pigtail)
	SISO	0.698~0.96 / 1.35~2.69 / 3.3~4.0	2.5 / 4.0 / 5.0	Available now (Ceiling / Pigtail type)
	MIMO	0.698~0.96 / 1.35~1.55 / 1.71~2.69 / 3.3~4.0	4.0 / 4.0 / 4.0 / 5.0	Available now (Ceiling / Pigtail type)



Contactless Chip-to-chip

Data transmission
6Gbps, Total jitter
0.375 UI, 5~80mm

01. Replace physical-contacting cable and connector
Communicate in rotating 360degree
02. Transmit / Receive 6.25Gbps without physical contact of connectors
No wear-off conductor(or pin) of connector and cable
03. Transmit / Receive data and power with combination of commercialized wireless-power-transfer device
04. Provide ST60 antenna modules with interfaces of connector or SMT



High Speed
(6.25Gbps)

Low Power-
consumption(mW)

short distance
(5~200mm) 60GHz

Wireless
connector

High-Gain + Gain-Flatness + Improved-Isolation with Miniaturized Form Factor



Side to side

Face to face

Side to side (Multi-link)

Application

Factory Automation (e.g. OTA Testing & Flashing)



No cables to plug / unplug
for reliability and higher
manufacturing productivity.

Display (e.g. LED TV & display wall)



LED tiles without physical
connectors for detachability,
form-factor, reliability.

Industrial Equipment (e.g. monitoring, machine vision)



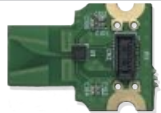
Contactless, freedom of
movement, physical and
electrical isolation,
form-factor, reliability.

Personal Electronics (e.g. Smartphone, wearable)



No connector wear & tear, water
and dust proof, sleek design,
foldable display.



Type		Figure	Frequency [GHz]	Peak gain [dBi]	Substrate (FR4) (Layer/Thickness mm)
F2F	Type 1		55 ~ 65	7.4	6L 1.2T
	Type 2		55 ~ 65	7.5	6L 1.2T
	Dual		56 ~ 66	5.5	6L 1.2T
	Vertical horn		55 ~ 65	7.8	4L 1T
	Slant horn		55 ~ 65	7.5	4L 1T
	Multi-link		55 ~ 65	7.4	6L 1.2T
S2S	Multi-link		55 ~ 65	6.5	6L 1.2T
	Type 1		55 ~ 65	4.1	6L 1.2T
	Type 2		56 ~ 66	4.9	6L 1.2T

Feature	Module Size (mm)	Product	Max data rate (Gbps)	Max. Distance (mm)	
				Half duplex	Full duplex
Coaxial feed	16 x 17.5 x 1.2	S60PVS1A	5	25mm	X
Aperture coupling	16 x 17.5 x 1.2	S60PVS2A	5	25mm	X
Dual feeding patch	18.5 x 14 x 1.2	S60PVD1A	6.25	8mm	Not support
Horn	17 x 18.5 x 1	S60HVD1A	6.25	20mm	Not support
Horn	19 x 18.5 x 1.2	S60HVD2A	6.25	20mm	9mm
Coaxial feed	60.5 x 60.5 x 1.2	S60PVM1C	3	35mm	15mm
Dipole w / dielectric guide	53 x 50 x 1.2	S60PHM1A	2.83	32mm	On-going
Vivaldi	16 x 22 x 1.2	S60PHS1A	5	12mm	X
Quasi yagi	16 x 20 x 1.2	S60PHS2A	5	10mm	X

Type		Frequency [GHz]	Peak gain [dBi]	Substrate (FR4) (Layer/Thickness mm)	Feature
F2F	SAM1	55 ~ 65	6dBi	6L 1.2T	Single No R/C No shield can
	SAM2	55 ~ 65	6dBi	6L 1.2T	Loopback + R/C
	SAM3	55 ~ 65	5dBi	6L 1.2T	SAM2 + R/C + Shield can
	SAM4	56 ~ 66	8dBi	4L 1.2T (v1) 6L 1.2T (v2)	Horn + R/C
	SAM5	56 ~ 66	8dBi	6L 1.2T	Horn + R/C + Shield can
S2S	SAM1	55 ~ 65	6dBi	6L 1.2T	Single + R/C
	SAM2	55 ~ 65	6dBi	6L 1.2T	Single + R/C + Shield can

Module Size (mm)	Product	Max data rate (Gbps)	Max. Distance (mm)	
6.4 x 7.4	S60PVS3A	2.83 ~ 5.66	20 ~ 12	Verified
6.4 x 10	S60PVS4A	2.83 ~ 5.66	20 ~ 12	On-going
8 x 14	S60PVS4B	2.83 ~ 5.66	16 ~ 8	On-going
8 x 14	S60HVS1A	2.83 ~ 5.66	22 ~ 14	to be update
8 x 14	S60HVS1B	2.83 ~ 5.66	22 ~ 14	to be update
8 x 12	S60PHS3A	2.83 ~ 5.66	20 ~ 12	On-going
8 x 12	S60PHS3B	2.83 ~ 5.66	20 ~ 12	On-going

"Our Upcoming Office Building,
Approximately 11,570m²"

Representative

#705, Samwhan Hipex A, 240, Pangyoyeok-ro,
Bundang-gu, Seongnam-si, Gyeonggi-do, 13493, Korea

sales@sensor-view.com

T+82 2 2038 7765 / F+82 2 2038 7764

WWW.SENSOR-VIEW.COM



Your trusted partner
for 5G and BEYOND-5G