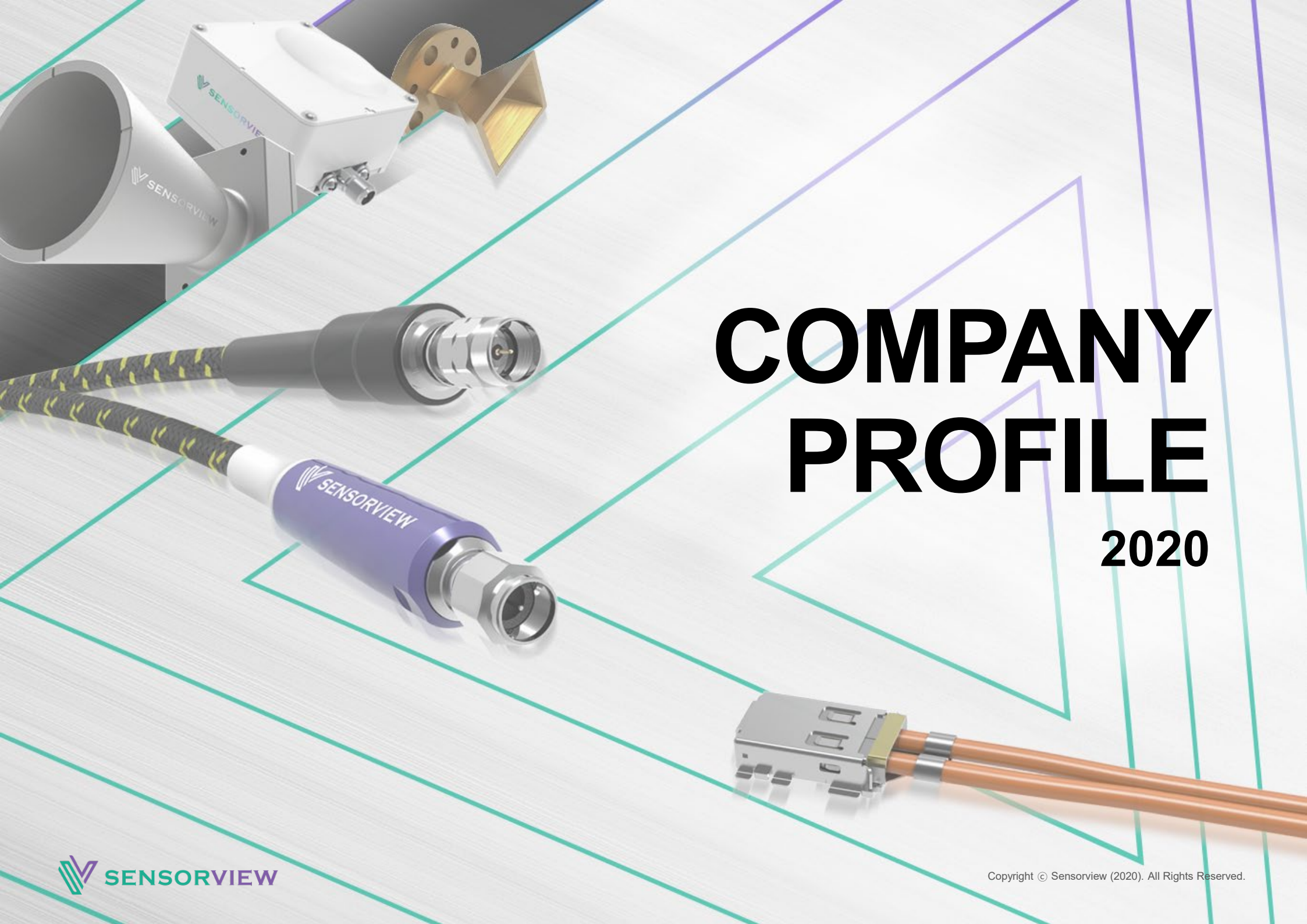

COMPANY PROFILE

2020

SENSORVIEW

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Sensorview 「 mmWave/5G antenna & cable solution provider 」

Your trusted partner for 5G and beyond-5G

Main Product

- mmWave/5G high performance antenna, cable and RF design solution for commercial and defense industry

Overview

- Established in 2015 | Headquarters in Pangyo, Korea
- mmWave and 5G technology leadership position in North America, Korea, Europe, Japan and China

Competitiveness

- Secured low loss, high frequency fusion material processing technology for mmWave and 5G
- Leading high performance antenna and cable design technology for mmWave and 5G
- Secured fusion material technology and design technology for antenna and cable suited for aerospace and automotive industry
- Skilled R&D resources and IPR

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1. Company that offers Value

Company that generates value through research and development to fulfill various customers' needs in order to cope with rapid changing market in 4th industrial revolution

2. Company that provides Total Solution for 5G Smart Connected Device

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

3. Social Company that shares Happiness

Company that shares happiness with customers, employees and suppliers through creative development results and returns those results to society

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R&D resources and business units

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4 business units + 4 R&D categories

Digital design | Analog design | Energy feeding | New material

Antenna Division

- 5G/mm-wave antenna & module
- Automotive V2X solution

Cable Division

- Low energy consumption cable
- mm-wave high performance cable

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IoT Division

- IoT solution
- AI integrated IoT
- Design Art integrated IoT

Material Division

- Low loss material
- High reliability material

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Business area (Antenna, RF Coax & connectors)

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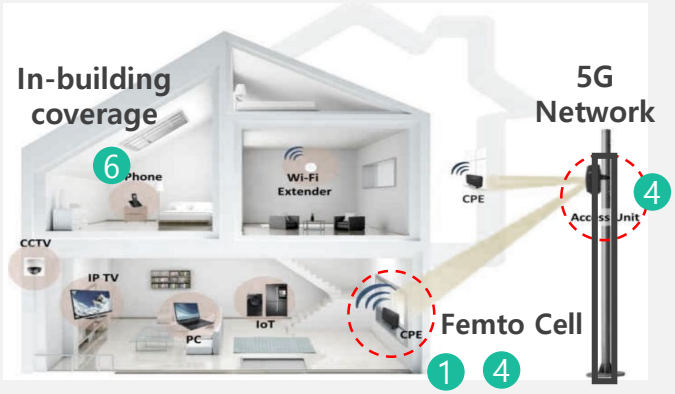
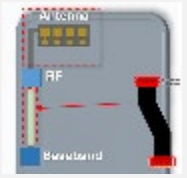
5G Infra Solution



5G Wireless Devices

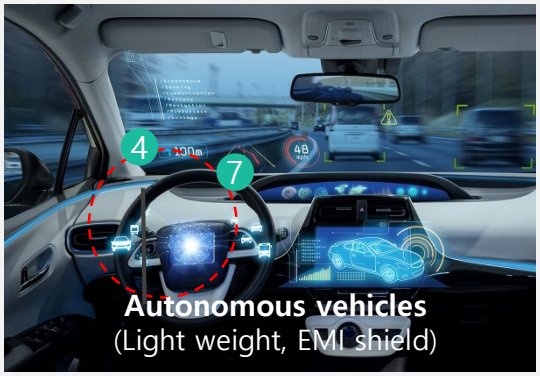


5G Smartphone

Smart TV

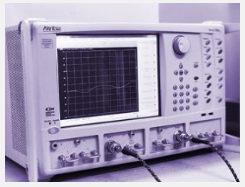
5G Laptop

Connected Car based on 5G

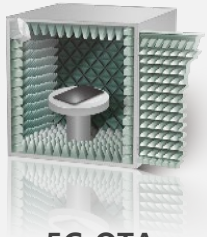


Autonomous vehicles
(Light weight, EMI shield)

RF T&M/ 5G(mmWave) T&M

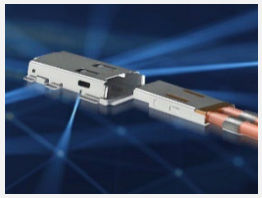


Network Analyzer

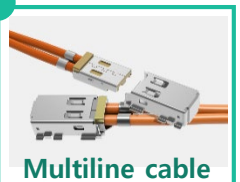


5G OTA Solution

Semiconductor Test Equipment



Micro Coaxial Cable

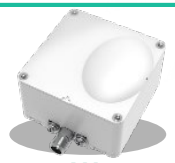


Multiline cable [MConflon®]

TLIA®

Flex-S®

mmWave Array antenna



mmWave Probe Antenna

In-building Antenna

Low-loss phase-matched microwave cable

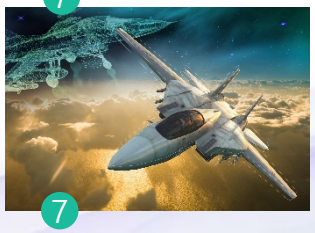
Phase-matched adapter

Precision RF connector

Aerospace & Defense

Aircraft

AESA radar system



Light weight cables

Ant. array RF Cables

LOGIR (Low-cOst Guided Imaging Rocket)

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High performance mmWave/5G cable technology

Under development
In Production

Your trusted partner for 5G and beyond-5G

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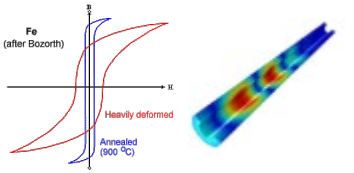
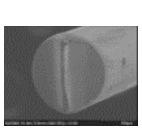
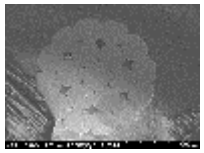
Coolductor®

Super low loss
High power rating

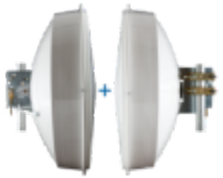
[Element Technology]







[Application]



5G Antenna

➤ **World's 1st technology**

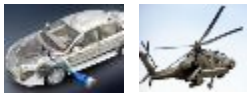
➤ **More than 300% better performance**

Conflon®

EMI shielded
Light weight

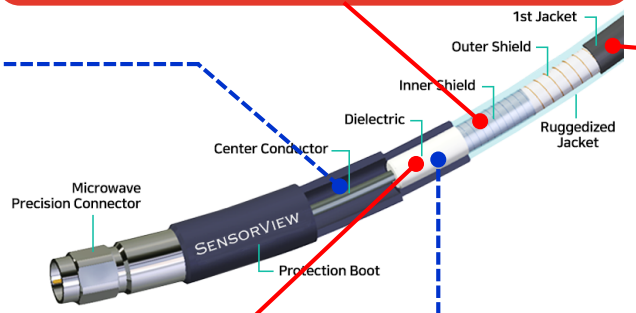
[Element Technology]

[Application]



➤ **World's 1st technology**

➤ **200% better performance**

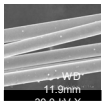


Zenild®

Light weight /
EMI shielded Highly tensile

[Element Technology]

- Plating on fiber
- Stronger than steel
- Same electrical conductivity as silver



[Application]

■ 60% less weight in same size

➤ **World's 2nd in production after NASA**

➤ **130% better performance**

Aeroflon®

Low loss for 5G (up to 67GHz)
Phase stable / low weight / highly flexible

[Element Technology]

- Material
- Low dielectric constant

[Application]

5G Infra

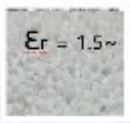
➤ **In global top 10**

➤ **More than 130% better performance**

Nanoflon®

Super low loss flexible dielectric material

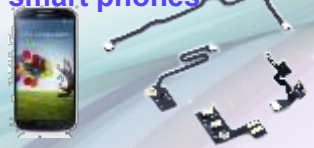
[Element Technology]



Low permittivity material

[Application]

100% used in 5G smart phones



➤ **World's 1st technology**

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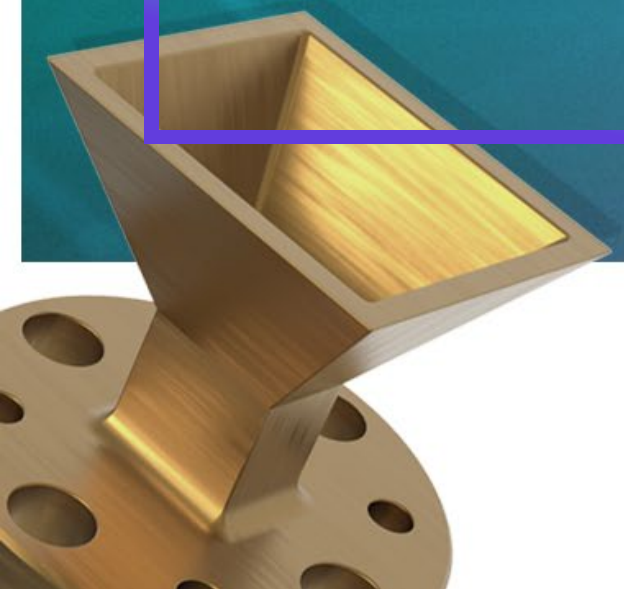
INVENTED FOR **5G**
SENSORVIEW

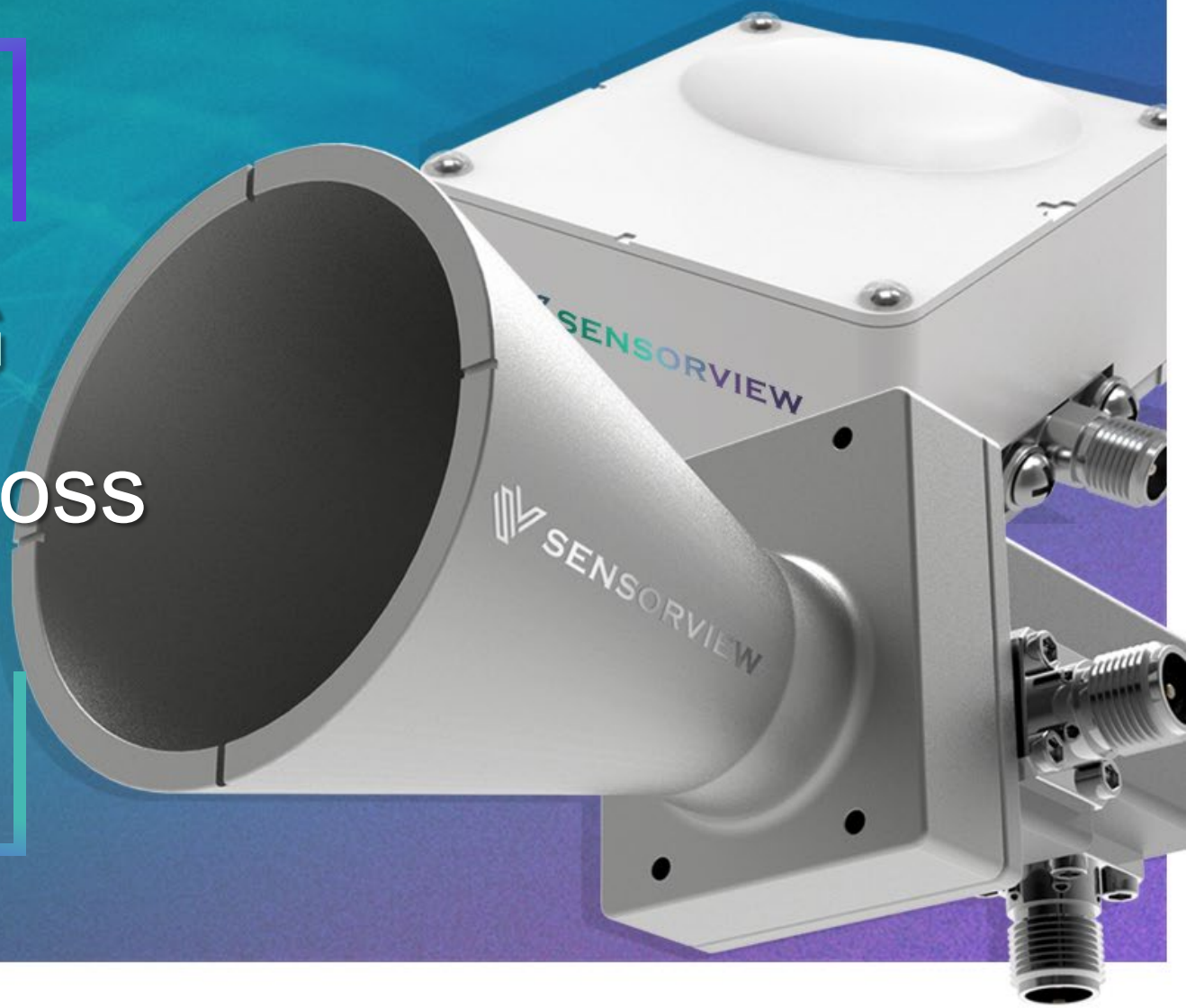
SENSORVIEW

mmWave/5G

higher gain. Low loss

Antenna





| Gain+ ® | SLLFM® | TLIA® | MFocus® | JPlug®

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High performance mmWave/5G antenna technology

Prototype & Performance

Element Tech. & Performance

Your trusted partner for 5G and beyond-5G

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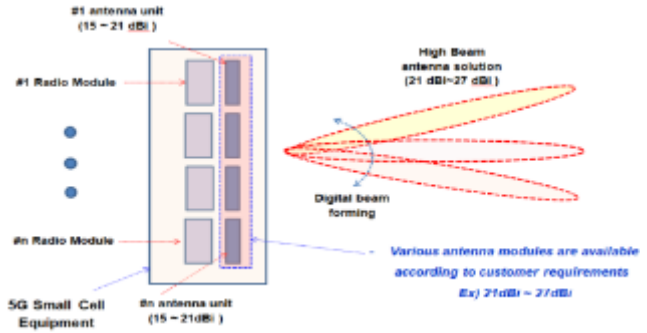
Gain+®

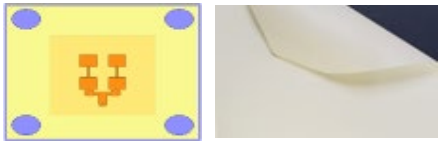
Low loss planar lens for additional higher gain



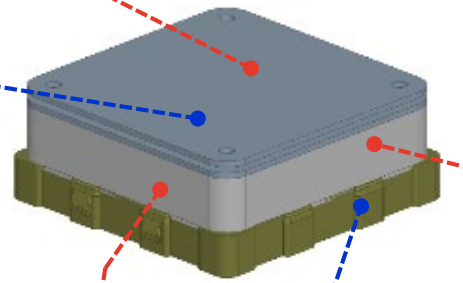
- Low loss dielectric lens solution
- Additional antenna gain available for 5G small-cell cell planning
- High performance design @ small size

SLLFM®

Low Loss (dielectric loss) Antenna



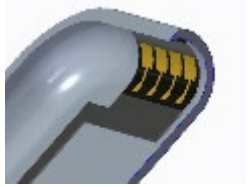
- Low Loss mmWave Antenna Technology
- Minimized dielectric loss solution @mmWave



TLIA®

Transmission Line Integrated Antenna for 5G/60GHz

- 2.5D flexible Low Loss mobile antenna
- Low loss transmission line Integrated MIMO antenna
- Beam-forming support

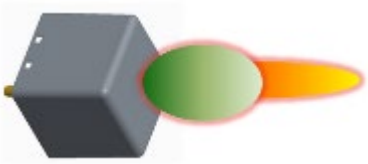


Cable integrated 5G antenna for smart phone

Cable integrated 60GHz antenna for smart TV

MFocus®

Antenna beam/gain variable solution w/o phase shifter for in-building solution



Expected 5G antenna system

- Variable Beam & Gain Without phase shifter
- Available for tunable gain/ beam tilt of 5G antenna

JPlug®

Just plug-in-connection minimized board-to-board connector for 5G antenna

Existing connector (3 parts)

Proposed new connector (1~2 parts)

- Low loss solution
- Minimized horizontal-to-vertical transition solution
- Low cost solution

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Advantage of Sensorview's solution

Your trusted partner for 5G and beyond-5G

SENSORVIEW

Various advanced technologies that can be used in many different industries

		Applicable product		Core technologies of Sensorview							Application
		Cable	Antenna	Lower dielectric constant **Aeroflon®**	Lower permittivity **Nanoflon®**	Lower conductor loss **Coolductor®**	Plating on PTEE **Conflon®**	Plating on fiber **Zenild®**	Precision assembly	Composite design	
1	**Low loss**	●	●	○	○	○	○		○		RF connectivity
2	**Low noise**	●					○	○			High sensitivity measurement
3	**Light weight**	●	◐	○	○		○	○			Aircraft, Automotive
4	**Low profile**	●		○	○	○	○			○	Mobile phone, AP
5	**Low cost**	●	●	○	○		○				Test & Measurement cable
6	**Flexibility**	●	●	○				○			Test cable & RRH
7	**High power**	●	●	○	○	○					High power component, TVAC
8	**EMI shielding**	●					○	○	○		Chamber, defense system
9	**Phase stable**	●	●	○	○						Phased array antenna, Radar
10	**Phase matching**	●		○			○		○		Phased array, High speed digital
11	**Composite**	●						○	○	○	5G infrastructure

Global monopoly technology introduced by Sensorview

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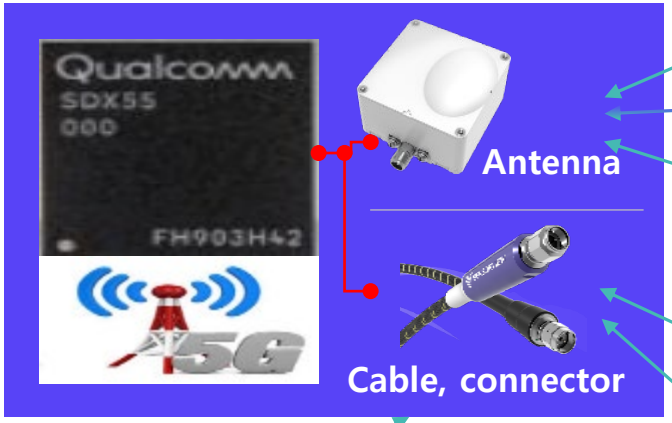
Advantages of Sensorview's 5G Antenna/Cable Solution

Your trusted partner for 5G and beyond-5G

SENSORVIEW

Better 5G System Performance, Lower CAPEX/OPEX

Low loss materials & antenna design solution for mmWave/5G band



1. **High Gain & Low Loss (conductor + dielectric) antenna**
   +1.X~2.XdB gain
2. **Low b'd-to-b'd connector loss antenna**
   + 0.5 ~ 1.XdB gain
3. **Low Loss Planar Lens/ Pattern Reshaping**
   + 1~2 dB gain

max. +3dB (200% ↑) (재료 솔루션)

4. **Super Low Loss Cable**
   1dB/m↓ @GEN1, +2dB/m ↓ @GEN2
5. **High Phase/Loss(Insertion) Stability, Perfect Phase Matching Cable**
   3~4 times better

max. +2dB (60% ↑) /m (재료 솔루션)

6. **Ultra Low Weight Cable for Aircraft**
   weight 30% ↓

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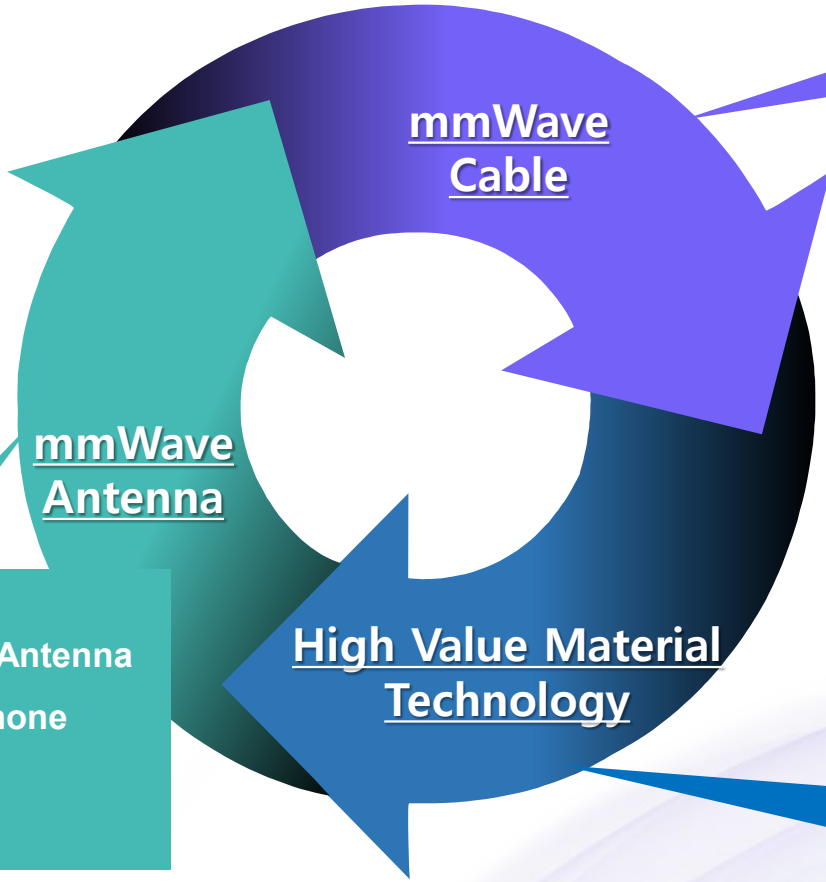
"Sustainable value-added business based on material/design fusion technology"



mmWave High Performance Cable

- Cable for Chipset/Wireless Communication
- Cable for Military/Aerospace

- mmWave High Performance Antenna
- 5G Antenna for BTS/Smartphone
- Aerospace/Military Antenna

- Low Loss Dielectric Material Technology
- Low Loss Conductor Material Processing Technology
- Electronic/Material Fusion Technology for mmWave
- Fusion Technology between materials

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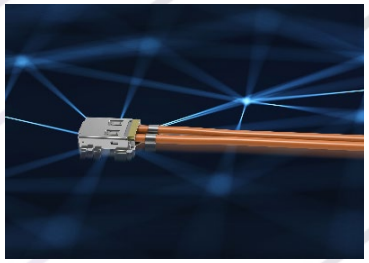

Micro IF Interconnection

Low-loss microwave cable

mmWave Patch Antenna

High shielding chamber

mmWave Horn Antenna

SENSORVIEW

Thank You

Your trusted partner for 5G and beyond-5G

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