Features

- Frequency range: 3.35-3.6 GHz
- 3D angle range of ±60 degrees for incidence and reflection
- Control interface: LAN[1]
- Bi-directional
- Modulation and protocol agnostic
- Support VESA Mount Standard
- Tiling up to a large RIS[2]
- Fast Patten Switch (μs)[3]

Applications

- Expanding Sub-6GHz network coverage to reach underserved areas.
- Improving signal quality in regions with weak or no Sub-6GHz signal coverage.
- Employing Multi-beam solutions for simultaneous multi-user support[2].
- Establishing secure zones for enhanced security and protection of sensitive data or infrastructure

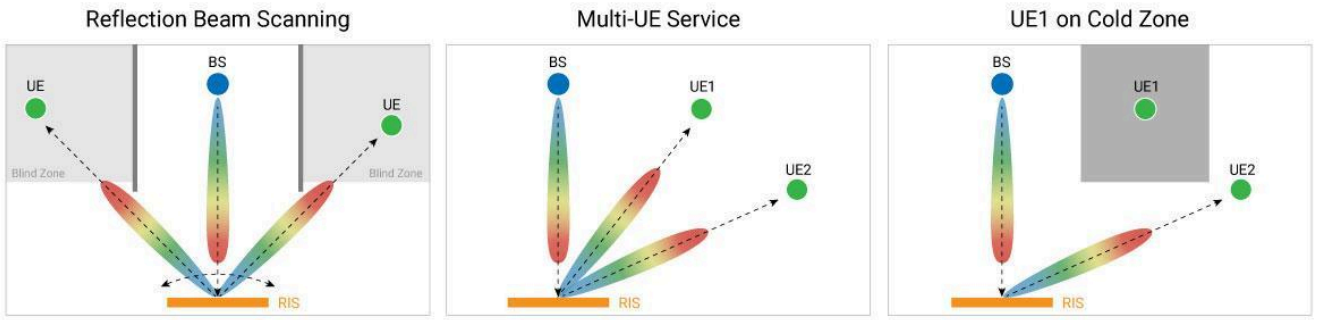

Figure 1.Overview of the Scenario.

Product Overview

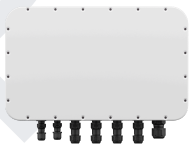

Figure 2. Controller.

Figure 3. RIS 3G5. (Left) w/ Radome. (Right) The Reflection Elements.

[1] It is subjected to changes.
[2] Planned feature to be released in 2025 Q1.
[3] Planned feature to be released in 2025 Q2.

RIS Specifications

Parameter	Conditions	Unit	Typ.
Frequency band	---	GHz	3.35-3.6 (TBC)
Polarization	---		Linear
Number of Antenna Arrays	---		10x10
Antenna Array Dimensions	---	mm	428x431(TBC)
Angle of Incidence	Vertical	deg	±60
	Horizontal	deg	±60
Angle of Reflection	Vertical	deg	±60
	Horizontal	deg	±60
RCS*1 Gain	Incident angle is 0, 3.5 GHz	dB	35-38
3 dB Beamwidth	Incident angle is 0, 3.5 GHz	deg	10-18
Distance from transmitter*2	---	cm	> 90 (TBC)
Power Consumption	Activate all pin diodes	W	< 5
Dimension	---	mm	510x510x57 (TBC)
Weight	Aluminum	kg	6.9 (TBC)
VESA Mount Standard	---	mm	100x100

*1 RCS: Radar Cross-Section
*1 RCS Gain was affected by different reflection angles
*2 Refer to Deployment Suggestion

Controller Specifications

Parameter	Conditions	Unit	Typ.
Control Interface	---	---	10/100 Mbps Ethernet
Pattern Switching Time	Ethernet	ms	TBC
Power Consumption	Integrated with single RIS unit	W	11
Supply Voltage	---	Vdc	12
Dimension	---	mm	345x215x55
Weight	Aluminum	kg	2
VESA Mount Standard	---	mm	100x100

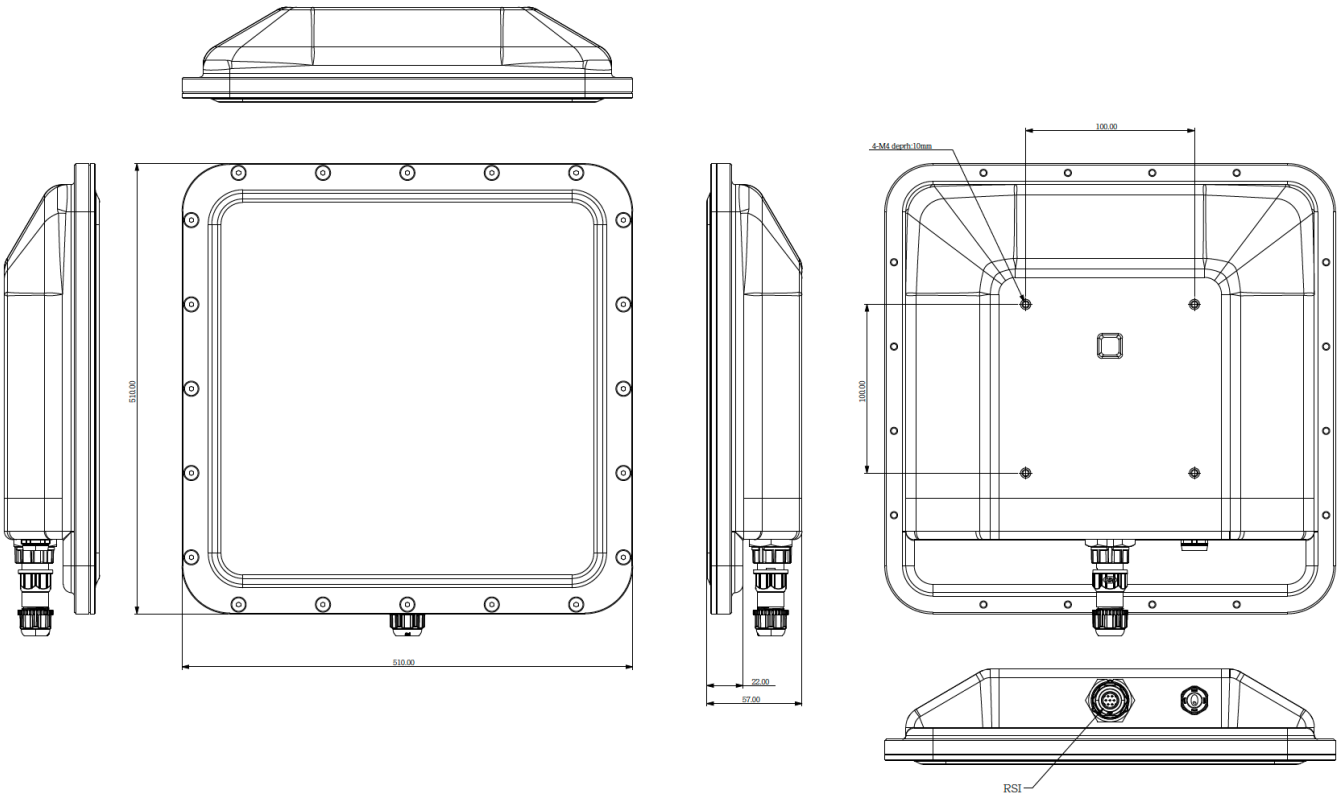

Figure 3. RIS 3G5 Mechanical Drawing.

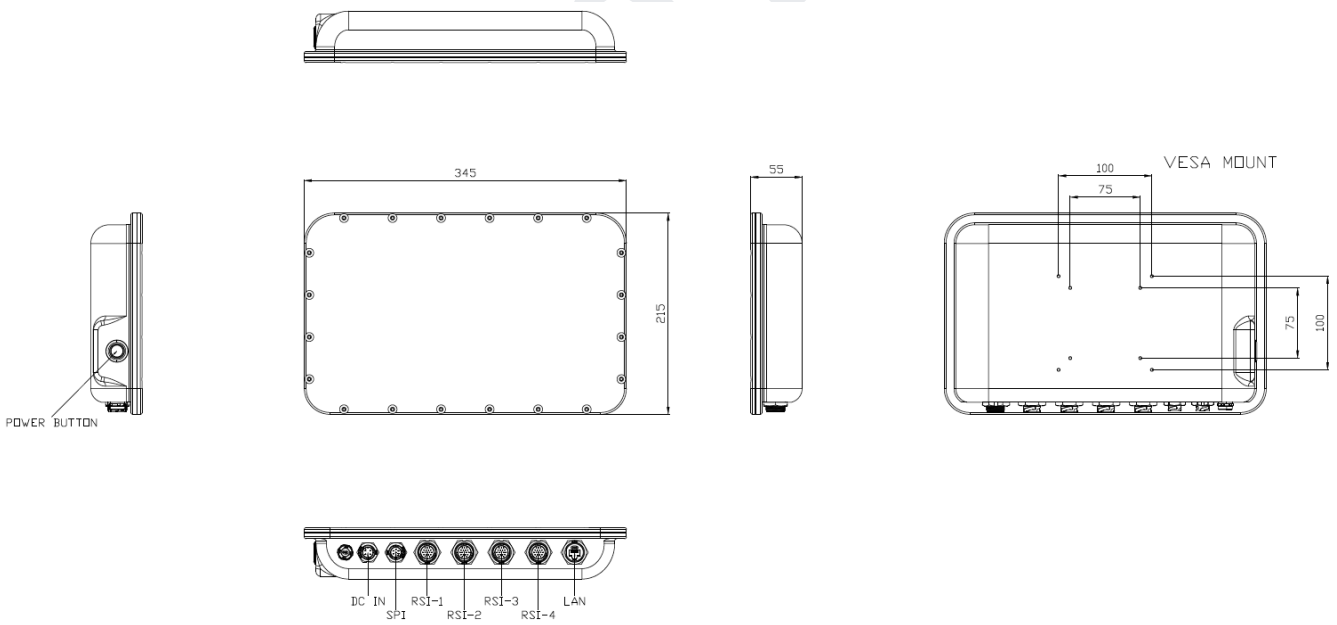

Figure 4. Controller Mechanical Drawing.