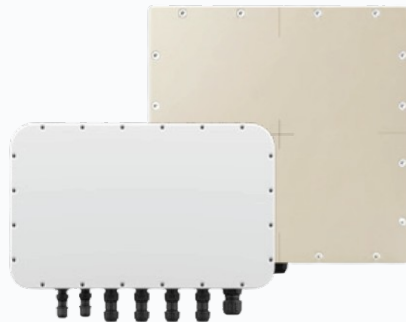


TMYTEK XRifle Dynamic RIS FR3

Reconfigurable Intelligent Surface · 7.125–8.4 GHz · 6G FR3 Upper Mid-Band · Product Brief



KEY FEATURES – XR-RIS-FR3-G

Parameter	Min	Typ	Max
Frequency Band	7.125 GHz	–	8.4 GHz
RCS Gain @ 7.7 GHz	45 dB	–	50 dB
3 dB Beamwidth @ 7.7 GHz	6°	–	13°
Beam Switching Time	–	<10 µs	–
Angle of Incidence / Reflection	–60°	–	+60°

TECHNICAL SPECIFICATIONS

- **Product Type**
Reconfigurable Intelligent Surface (RIS)
- **Model**
XRifle Dynamic RIS FR3
- **Order No.**
XR-RIS-FR3-G (TBC)
- **Frequency Band**
7.125 – 8.4 GHz (6G FR3 Upper Mid-Band)
- **Antenna Array**
16 x 16 = 256 elements, PIN diode
- **Phase Control**
1-bit (0° / 180°)
- **Polarization**
Linear
- **Element Pitch**
≈ 17.5 mm ($\lambda/2$ @ 8.4 GHz)
- **Array Dimensions**
280 x 280 mm
- **Module Dimensions**
279 x 279 x 50 mm
- **Weight**
2 kg
- **VESA Mount**
100 x 100 mm
- **Min. Distance to Tx**
> 65 cm
- **Controller Interface**
10/100 Mbps Ethernet / SPI
- **Supply / Power**
12 VDC / 11 W
- **Software**
TMXLAB Kit GUI + TLKCore Python API

APPLICATIONS

6G FR3 OTA Testing Channel sounding and propagation measurement in the 7.125–8.4 GHz upper mid-band	RIS Beamforming Validation Reference platform for 3GPP R18 / IMT-2030 RIS standardization work	ISAC Prototyping Integrated Sensing and Communication research in the 6G FR3 band
6G Lab Research Coverage extension, multi-user MIMO and spatial multiplexing studies	NLOS Engineering Controlled Non-Line-of-Sight scenarios with programmable reflection	Standards R&D Reproducible test setups for 6G research groups and standardization bodies