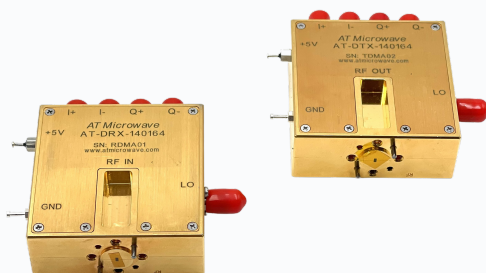


# TX/RX Modules up to 500 GHz



## TECHNICAL SPECIFICATIONS

- **Frequency Coverage**

Receiver modules operate from standard WR15 to WR6 waveguide bands, reaching 164 GHz; transmitter assemblies cover identical waveguide configurations up to 164 GHz; converter modules (bi-directional TX/RX capability) extend to 500 GHz with advanced waveguide support

- **Interface Options**

Coaxial connectors (SMA and equivalent) for lower-frequency bands; precision waveguide ports (WR15, WR10, WR6, WR4) for seamless integration into existing RF systems

- **Integration**

Monolithic module design incorporating LNA stages in receiver paths and HPA amplification in transmitter configurations; optimized VSWR performance and gain flatness across operational bands

- **Output Power & Sensitivity**

Transmitter modules deliver specified dBm output levels; receivers achieve noise figure performance suitable for weak-signal detection and ranging applications

- **Availability**

Stock inventory reduces lead times for rapid prototyping and production ramp-up

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## APPLICATIONS

6G and Beyond: Sub-terahertz communication testbeds and next-generation wireless system prototypes

SATCOM: High-capacity satellite uplink and downlink terminals utilizing mmWave frequency bands

Defense and Radar: Precision millimeter-wave radar sensors, target acquisition systems, and secure communication payloads

5G Infrastructure: Backhaul and fronthaul solutions operating at mmWave frequencies

Automotive and Industrial Sensing: Advanced driver-assistance systems (ADAS) and non-destructive testing equipment