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AS0102

C-Band RF Front-End IC For Enhanced RAN Resilience

INTEGRATION & FLEXIBILITY AT THE PHYSICAL LAYER

A highly integrated RFIC that combines Tx/Rx, gain and phase control, filtering and monitoring, enabling adaptive and software-defined 5G/6G radio architectures.

5G »» 6G

Conventional RF Architecture (Multiple RF Components)

INTEGRATED RF SIGNAL PATHS

- TX: GAIN — FILTER — PHASE — PA DRIVER
- RX: GAIN — PHASE — FILTER — LNA
- FB: DPD LOOP — OBSERVATION — TSSI

AS0102 Integrated RFIC Circuit



- Tx / Rx paths
- Gain control (VGA)
- Phase control (Φ)
- Filtering (BPF)
- Switching
- Tx monitoring (DPD feedback)

Higher Integration | **Greater Flexibility** | **Reduced BOM & Size** | **Lower Power**

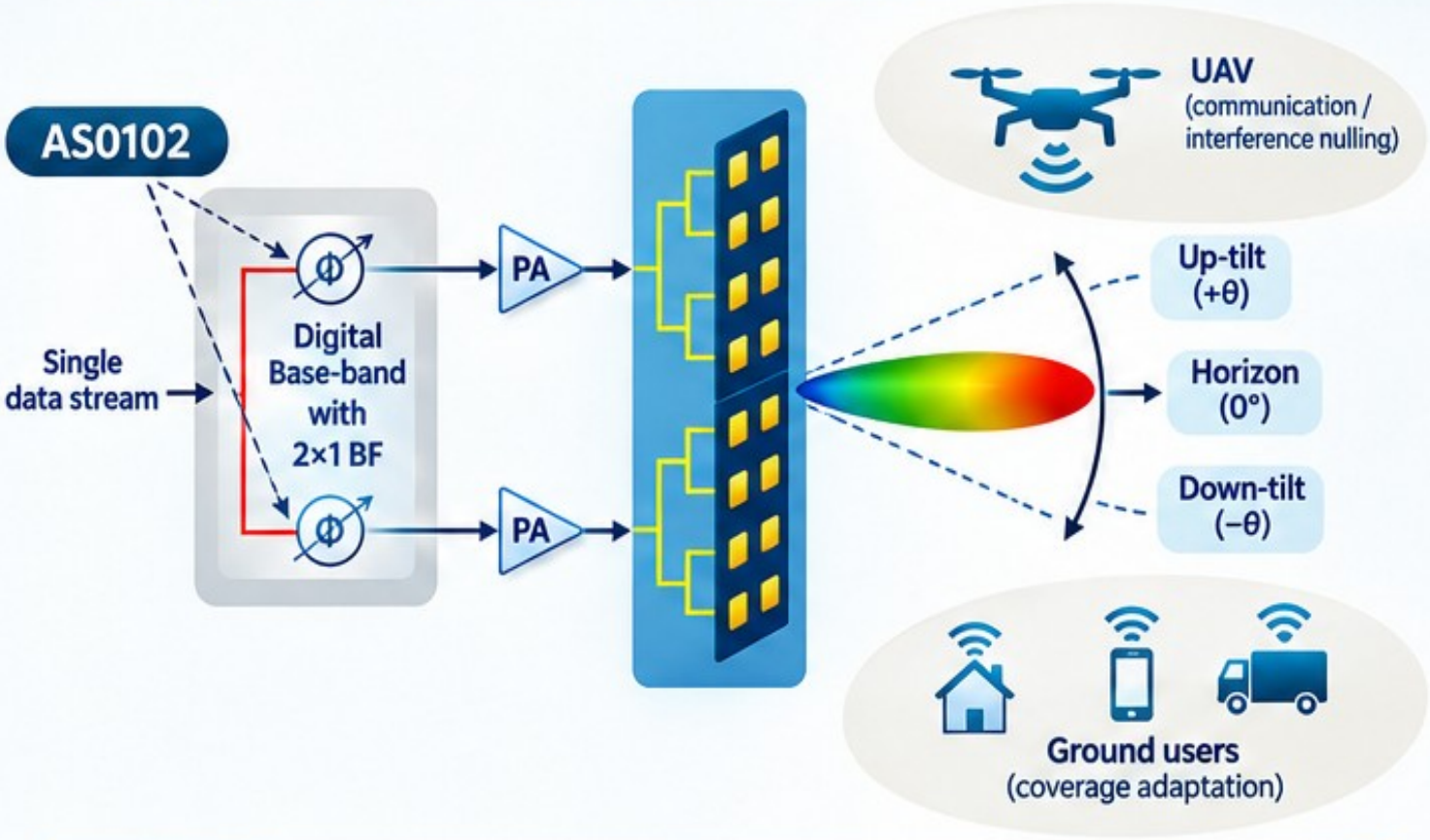
AI

ENABLING AI-DRIVEN 5G/6G RADIO CONFIGURATION

Programmable RF control for dynamic and intelligent network adaptation at the physical layer.

COVERAGE ADAPTATION WITHOUT MOVING PARTS

Electronically control the beam direction and coverage to dynamically adapt to network conditions, users and interference.



DYNAMIC SECTOR CONTROL

COVERAGE ADAPTATION WITHOUT MOVING PARTS

KEY CAPABILITIES

- Electronic beam steering & tilt (coverage adaptation)
- Dynamic sectorization
- Interference mitigation, (e.g. intruder UAV nulling)
- UAV communication support

APPLICATIONS

- 5G/6G radio infrastructure (n77 / n78)
- Terrestrial / non-terrestrial networks
- Private networks & critical communications
- UAV-aware networks

AS0102 | INTEGRATED | RECONFIGURABLE | 5G / 6G READY

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