

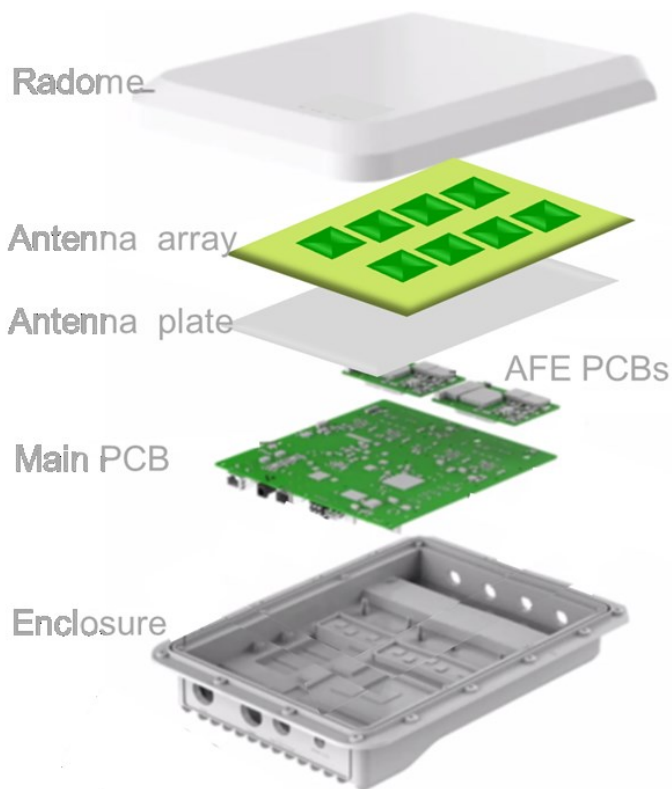


ARGO SEMICONDUCTORS

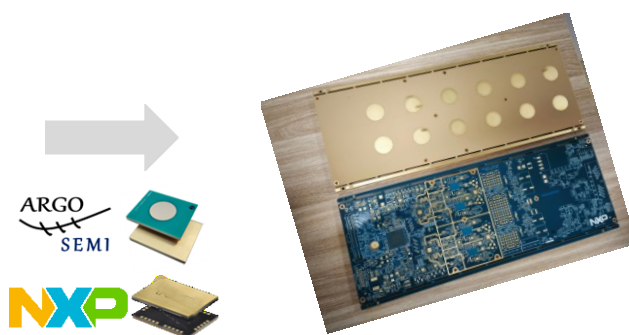
C-band Active Antenna Module



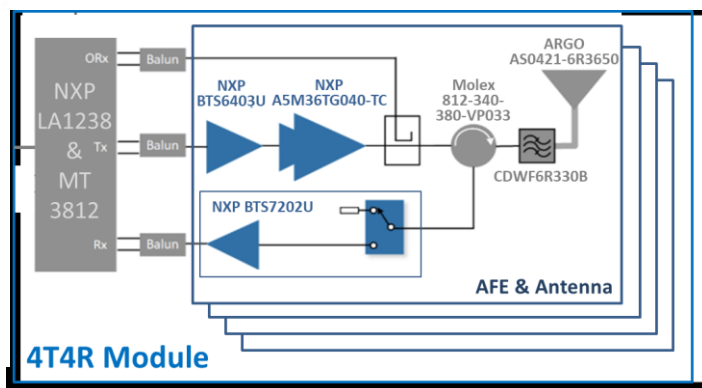
- World's first single board active antenna module for sub-6GHz 5G NR
- Mid-power module for easy MIMO and massive MIMO radios



Enabled by NXP's top cooled PA and ArgoSemi's printed antenna technology



Drastic simplification of MIMO radio
Lower BOM, higher power efficiency



Digital AirFast Features - 4T4R RU Model developed by NXP, ArgoSemi and Metanoia

Parameter	Description
Channels	4 Transmit 4 Receive
Antenna Array	12 dual polarization elements organized in 2 column sub-arrays / 24 antenna elements
Sector size	90 deg
Output power	Up to 25W at the antenna feed. Target 3GPP medium range base station.
EIRP	60dBm tunable down to 47dBm CAT-B (EIRP/10MHz @ 40MHz), aim for ~1km cell radius
Receive Noise Figure	target < 2dB
RF band	n48 (3.55-3.7GHz), Derivative products to be defined for other use-cases: n41, n78, n79
IBW	n48/CBRS, scale to others 145MHz
OBW	n48/CBRS, scale to others 100MHz
Compliance	3GPP
DC power	target < 110W
Operating Temperature Range	-40°C to 50°C
Volume	6ltr
Weight	5kgs
Interface	ORAN split option: 7.2; options for system solution: 0, 2, 6



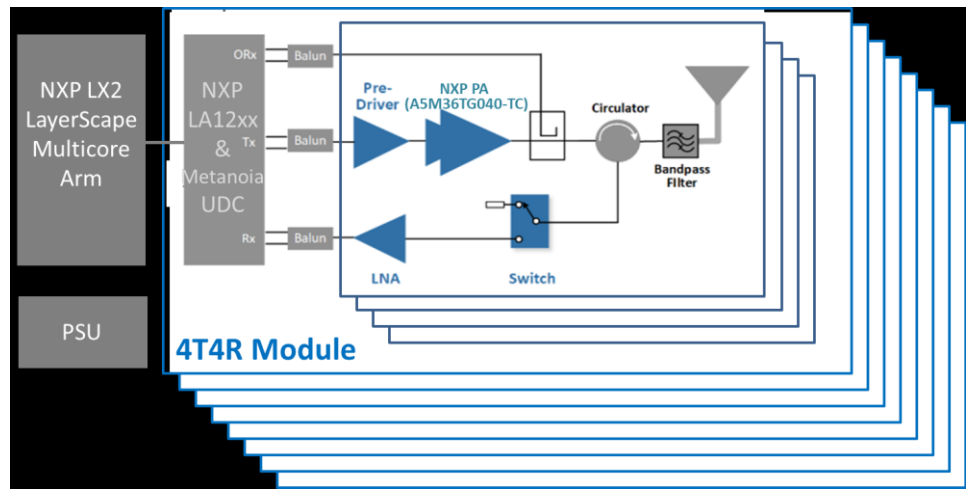
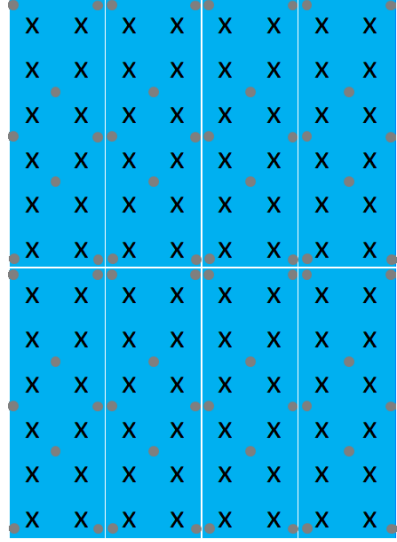
ARGO SEMICONDUCTORS

Modular massive MIMO Radio

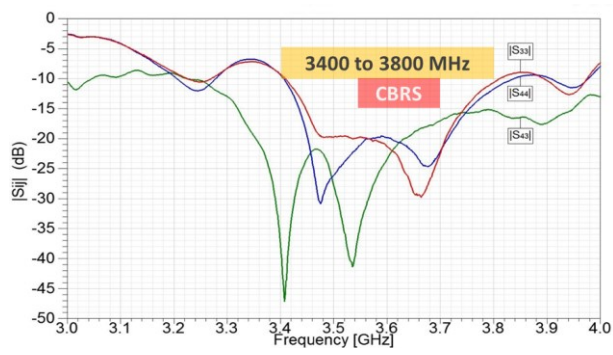


**Active Antenna Array with
Relaxed mechanical stresses
More efficient heat dissipation**

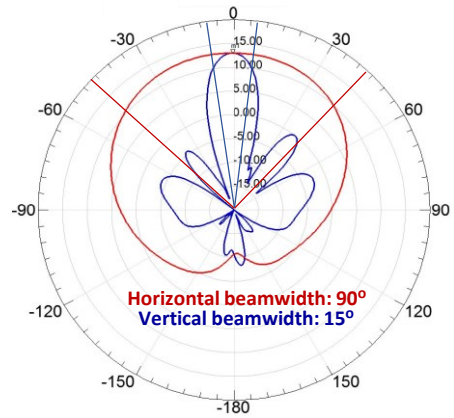
32T32R Radio, 192 antenna elements



4T4R / 24 AE module



N79 Impedance bandwidth curves



6x1 subarray radiation diagram

Features of 32T32R Modular Active Antenna

Parameter	Description
Channels	32 Transmit 32 Receive
Antenna Array	96 dual polarization elements organized in 8x2 column sub-arrays / 192 antenna elements
Sector size	120 deg
Output power	200W at the antenna feed. Target 3GPP macro base station.
EIRP	78dBm
Receive Noise Figure	target < 2dB
RF band	n48 (3.55-3.7GHz), Derivative products to be defined for other use-cases: n41, n78, n79
Adjacent Channel Leakage Ratio (ACLR)	-46dB; subject to EVM < 2%
Compliance	3GPP
Dimensions	800mm x 360mm
Operating Temperature Range	-40°C to 50°C
Interface	ORAN split options: 7.2, 8

