

# TJ1602W

Tejas LTE eNodeB



DATA SHEET



## Product Highlights

**TD-LTE Rel-10 eNodeB**

**Configurable 5/10/20 MHz bandwidth**

**Up to 6 macro sectors**

**2X2 MIMO Radio**

**Band 38, 39, 40, 41 & 42**

## Overview

TJ1600 platform now extends its role from the backhaul/enterprise segment to the wireless access segment by offering LTE Base Station capability. With the addition of the LTE line card, TJ1600 now offers a TD-LTE Release -10 compliant high capacity 2X2 MIMO 3-sector Macro eNodeB (BTS). The baseband processing for the three sectors is handled by the LTE line

card while the Remote Radio Head handles the RF up/down conversion. The LTE baseband card interfaces with the Remote Radio Head over CPRI and occupies one line card slot on the TJ 1602.

Up to two baseband cards can be stacked in a single TJ1600-2 chassis to scale up LTE eNodeB deployment to six sectors.

## Key Benefits

**Flexible:** Each baseband card can act as a coordinated three sector BTS controller or three independently deployed single sector BTS.

**Multiple synchronization options:** eNodeB uses GPS as the primary synchronization source. Optionally, IEEE 1588 based synchronization is also possible. Dedicated inputs and outputs (1PPS and 10MHz) are available for synchronizing with external timing sources.

**Deployment specific access scheduling:** Customizable scheduling profiles available for operator to optimize throughput, latency, coverage, etc. depending on specific deployment needs, on a per cell basis.

**Backhaul optimizations:** eNodeB backhaul can optionally be seamlessly integrated with Tejas optical transport solutions in order to maximize site efficiencies

# Technical Specifications

## Technology

TD-LTE Release-10

2300 to 2400 MHz (Band 38, 40, 41 and 42)

## Sectors

3-Sectors (5/10/20 MHz) per Baseband Card

## MIMO

2X2 (Transmit Diversity, Open Loop and Closed Loop Spatial Multiplexing)

Transmit power: 10 W per Antenna port

Spurious Emissions as per 3GPP Cat-B

## Baseband to RRH Radio Interface

CPRI I&Q interface over 1310 nm Fibre

Up to 20 km fibre length from Baseband card to RRH

## Capacity

Up to 1500 connected UEs

## U-Plane Latency

Less than 10msec (RAN latency)

## Synchronization

GPS, IEEE 1588\*

## Backhaul

Two GigE SFP ports (configurable as optical/electrical) for connectivity to EPC

## Power Efficiency

40% at 64 QAM

## Data Throughput per sector

Up to 80 Mbps DL and 6 Mbps UL

(TDD Config-2, single 20 MHz carrier)

## Surge Protection

20KV built-in at head end

## Antenna tilt

AISG 2.0 capable

## Management

Tejas Element Management System

Northbound SNMPv2 interface

Full Remote Management Capability

NMS, EMS, FCAPS Controllable via SNMP, HTTP,

CLI

## Power Supply

### Baseband

-48 V DC nominal, -36 V to -60 V

Power consumption < 100W

### RRH

-48V DC nominal, -36V to -60V

Power consumption < 150W

## Physical Dimensions

### Baseband Chassis

372 mm x 89 mm x 258 mm

### RRH

360 mm X 410 mm X 106 mm, 15 kg

## Environmental and EMI-EMC

### Baseband

Operating Temperature: 0°C to 50°C.

Relative Humidity: 10% to 90%, non-condensing.

EN301489-1, 301489-19, 301489-23

EN55022 Class A

FCC Part 15 Class A

EN61000-4-2 to 4-6

### RRH

Operating Temperature: -15°C to 55°C

Relative Humidity: 10% to 90% non-condensing

Dust and Water Resistant as per IP67

EN301489-1

EN55022 Class A

EN61000-4-3

CISPR 16-1-1, 1-2, 1-4, 2-1, 2-3, 2-4

ETSI EN 301 908-14, TS 136 141

*\* Network dependent Specifications subject to change without notice*



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