



Technical Note

**LTE 1900MHz**

**Synergy 2000- Band 2&25**

Connecting the World with Wireless Access Solutions

Synergy 2000- Band 43		
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## 1. Scope

This document provides a description of the LTE Synergy product.

## 2. Synergy (Base Station)

A Base station radio, Synergy 2000 1.9 GHz - Band 2&25 TDD LTE, is a part of LTE broadband fixed cellular wireless access system. The system provides a radio link between an end-user (a subscriber) and a network to give high-speed data access. The Synergy's transceiver/receiver (Up to 64 QAM modulation, data rate up to 150 Mbps) uses OFDM and operating in TDD mode, equipped with a 17 dBi external antenna. The maximum total RF output power (not including antenna gain) is 35.53dBm for 17dBi and it can be reduced by software.

The Synergy is installed outdoors and typically is mounted on a pole. The Subscriber transmits and receives traffic to and from the base station respectively. The transceiver provides subscribers with "always-on" Internet, high speed data only, or data and voice (VoIP) services and is configured with a unique base station reference number, preventing the LTE UE from relocating to another subscriber premises without authorization.

### 2.1. EUT (Air4G) test configuration

The EUT ports and lines description is given in the table below.

Port type	Port description	Connector type	Quantity	Cable length (m)	Indoor /outdoor	Connected to
DC	48 VDC	DC Connector	1	100	Outdoor	DC P.S
Data	Ethernet	RJ 45	1	100	Outdoor	Eth. Switch