LTE101

Outdoor Access Point

WILSON CONNECTIVITY

LTE101: Dual-Carrier Outdoor 4G/LTE Solution for Business Connectivity

The Wilson Connectivity LTE101 delivers powerful 4G/LTE capabilities for outdoor business environments through its dual-carrier design. This robust outdoor access point ensures reliable connectivity for a wide range of commercial applications. With its two-carrier configuration, the LTE101 offers the bandwidth and flexibility needed for data-intensive operations in corporate campuses, industrial sites, and outdoor business venues. It's the ideal choice for enterprises looking to maintain strong, consistent wireless connections for their outdoor operations, supporting everything from IoT deployments to mobile workforce solutions.

In DC mode, each carrier is treated as an independent cell, supporting 96+96 users with each cell supporting 5, 10, 15, or 20 MHz bandwidth. Using a G101 in DC mode simplifies and streamlines the deployment of split sectors. This product comes with a standard one-year warranty; an extended warranty is available.

Technology	
Standard	LTE TDD RAN (3GPP Release 15 compliant)
TDD UL/DL Configuration	1, 2, 6 (with Special Subframe Configuration 7)
Frequency Band	B48 (3550MHz–3700MHz)
Channel Bandwidth	SC: 5/10/15/20MHz CA: 40MHz as maximum aggregated bandwidth
Multiplexing	MIMO: 2x2 (DL)
Security	Radio: SNOW3G/AES-128 Backhaul: IPsec (X.509 AES-128, AES-256, SHA-128, SHA-256)

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Highlights

Standard LTE TDD Band 48

GUI-based local and remote Web management

Excellent Non-Line-of-Sight (NLOS) coverage

Peak rate: Up to DL 290Mbps and UL 70 Mbps with 2x20MHz bandwidth

2CC DL/UL CA improves the spectrum efficiency of fragmented spectrum resources

Suitable for private and public deployments; any IP-based backhaul can be used, including public transmission protected by Internet Protocol Security (IPsec)

96 RRC connected users per carrier (96+96 in DC mode), upgradeable to higher capacity in future releases

Configured out-of-the-box to work with The Wilson Platform

Supports transparent Bridge Mode

Supports Citizens Broadband Radio Service (CBRS)

Interoperable with standard LTE Evolved Packet Core (EPC)

Supports TR-069 network management interface

Lower power consumption, which reduces OPEX

Interfaces

Ethernet Interface	1 RJ-45 Ethernet interface (1 FE/GE)
Power Supply	PoE++ (IEEE 802.3bt compliant)
Protocols Used	IPv4/IPv6 (Dual Stack), UDP, TCP, ICMP, SNMPv2c, NTP, SSH, IPsec, TR-069, HTTP/HTTPs, 1588v2, DHCP
Network Management	IPv4/IPv6, HTTP/HTTPs, SNMPv2c, TR-069, SSH
VLAN/VxLAN	802.IQ/VxLAN
LED Indicators	4 x status LED CELL1/CELL2/ALM/PWR

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Performance

Peak Data Rate (DC)	**2x20 MHz**	**DL (Mbps)**	**UL (Mbps)**
	UL/DL Config 1	2x105	2x28
	UL/DL Config 2	2x145	2x14
	UL/DL Config 6	2x85	2x35
	2x10 MHz	**DL (Mbps)**	**UL (Mbps)**
	UL/DL Config 1	2x51	2x14
	UL/DL Config 2	2x70	2x7
	UL/DL Config 6	2x42	2x17
Peak Data Rate (CA)	**2x20 MHz**	**DL (Mbps)**	**UL (Mbps)**
	UL/DL Config 1	210	56
	UL/DL Config 2	290	28
	UL/DL Config 6	170	70
	2x10 MHz	**DL (Mbps)**	**UL (Mbps)**
	UL/DL Config 1	102	28
	UL/DL Config 2	140	14
	UL/DL Config 6	84	34
	20 MHz + 10 MHz	**DL (Mbps)**	**UL (Mbps)**
	UL/DL Config 1	156	42
	UL/DL Config 2	215	21
	UL/DL Config 6	127	52
	20 MHz + 15 MHz	**DL (Mbps)**	**UL (Mbps)**
	UL/DL Config 1	182	49
	UL/DL Config 2	250	24
	UL/DL Config 6	148	61

User Capacity	Up to 96 RRC connected users per cell (4 users per TTI)	• SC/CA: 96 RRC connected users • DC: 96+96 RRC connected users
Maximum Deployment Range	5 kilometers	
Latency	30 milliseconds	
Receive Sensitivity	-100 dBm (per channel)	
Modulation	MCS0 (QPSK) toMCS27 (256QAM) DL: QPSK, 16QAM, 64QAM, 256QAM UL: QPSK, 16QAM, 64QAM	
Transmit Power Range	0 to 24 dBm per channel (combined +30 dBm, configurable) (1 dB interval)	
Quality of Service	Nine-level priority indicated by QoS Class Identifiers (QCI)	
ARQ/HARQ	Yes	
Synchronization	GPS, 1588v2	

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Modulation Levels (Adaptive)

MCS	Modulation Scheme	RSRP (dBm)	Coverage Distance (km)
0-4	QPSK	-120 ≤ RSRP < -110	4 < D ≤ 5
5–9	16 QAM	-110 ≤ RSRP < -100	3 < D ≤ 4
10-19	64 QAM	-100 ≤ RSRP < -85	2 < D ≤ 3
20-27	256 QAM	RSRP ≥ -85	D ≤ 2

NOTE: The information provided is for reference only as the environment can impact modulation levels.
Scenario: Base Station height is 30 meters; Customer User Equipment (CPE) height is two meters.

Features

Voice	VoLTE*
NSA	Supported
Traffic Offload	Local breakout
Layer 2 Support	Transparent Bridge Mode
Maintenance	• Local/Remote Web maintenance • Online status management • Performance statistics • Fault management • Local/Remote software upgrade • Logging • Connectivity diagnosis • Automatic start and configuration • Alarm reporting • User information tracing • Signaling trace

* Planned for future release

Link Budget

Antenna Connection	N-Type connector for external high-gain antenna
GPS Antenna	External GPS antenna, N-Type connector
Power Control	UL Open-loop/Closed-loop Power Control, DL Power Allocation (3GPP TS 36.213 compliant)

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Physical	
Surge Suppression	Yes
Power Interface Lightning Protection	Differential mode: ±10 KA Common mode: ±20 KA
MTBF	≤ 150000 hours
MTTR	≤ 1 hour
Ingress Protection Rating	IP65
Operating Temperature	-40°F to 131°F / -40°C to 55°C
Storage Temperature	-58°F to 149°F / -50°C to 65°C
Humidity	5% to 95% RH
Atmospheric Pressure	70 kPa to 106 kPa
Power Consumption	Typical 20W,maximum25W
Weight	With pre-installed bracket: 10.5 lb/4.75 kg Without bracket: 9.6 lb/4.35 kg
Dimensions (HxWxD)	With joint: • 15.0 x 8.9 x 3.0 inches • 381 x 227 x 75millimeters Without joint and handle: • 12.2 x 8.9 x 3.0 inches • 311 x 227 x 75millimeters
Installation	Pole or wall mount

Global Part Numbers	
GXC-API-101	LTE101 Outdoor TDD Access Point – LTE Release 15, 4x250mW(24 dBm), 1FE/GE, PoE++, 3.5 GHz (3550MHz–3700MHz), B48, external antenna • FCC certification: 2AG32PBS3101SE • IC certification: 20982-PBS3101SE