

INTRODUCTION

The GXC G100 is an advanced two-carrier indoor Access Point compliant with 3GPP LTE TDD technology. This 4x250mW Access Point operates in either Carrier Aggregation (CA) mode or Dual Carrier (DC) mode.

In CA mode, the G100 supports 2CC (2 Component Carriers) DL/UL CA. 2CC DL/UL CA doubles DL/UL peak throughput compared to a single carrier by aggregating two separate spectrum resources into a virtual contiguous spectrum resource.



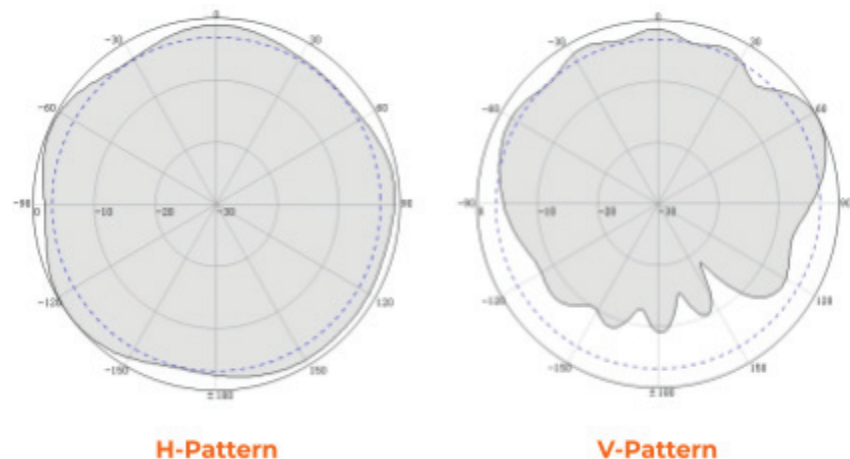
In DC mode, each carrier is treated as an independent cell, supporting 96+96 users, with each cell supporting 5, 10, 15, or 20 MHz bandwidth. Using a G100 in DC mode simplifies and streamlines the deployment of split sectors. This product comes with a standard one-year warranty; an extended warranty 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 (3550 MHz–3700 MHz)
Channel Bandwidth	SC: 5/10/15/20 MHz CA: 40 MHz as maximum aggregated bandwidth
Multiplexing	MIMO: 2x2 (DL)
Security	Radio: SNOW 3G/AES-128 Backhaul: IPsec (X.509 AES-128, AES-256, SHA-128, SHA-256)

** Planned for a future release*

ANTENNA PATTERN



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 290 Mbps and UL 70 Mbps with 2x20 MHz 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
- Integrated small cell form factor for quick and easy installation
- Configured out-of-the-box to work with GXC's Onyx Platform
- Supports Citizens Broadband Radio Service (CBRS)
- Interoperable with standard LTE Evolved Packet Core (EPC)
- Supports TR-069 network management interface

INTERFACE

Ethernet Interface	1 optical (SFP) and 1 RJ-45 Ethernet interface (1 GE)
Power Supply	12 VDC 2A, PoE+/48 V 0.6 A, complies with IEEE 802.3at standard
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

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			
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	51			
	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)					
	<ul style="list-style-type: none"> ● SC/CA: 96 RRC connected users ● DC: 96+96 RRC connected users 					
Latency	30 milliseconds					
Receive Sensitivity	-100 dBm (per channel)					
Modulation	MCS0 (QPSK) to MCS27 (256 QAM)					
	DL: QPSK, 16 QAM, 64 QAM, 256 QAM					
	UL: QPSK, 16 QAM, 64 QAM					
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	Supported					
Synchronization	GPS, 1588v2					

MODULATION LEVELS (ADAPTIVE)

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

NOTE: The information provided is for reference only as the environment can impact modulation levels.

FEATURES

Voice	VoLTE*
NSA	Supported
Traffic Offload	Local breakout
Layer 2 Support	Transparent Bridge Mode
Maintenance	<ul style="list-style-type: none"> • 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

RF Antenna	3 dBi built-in omni antenna
GPS Antenna	External GPS antenna, SMA connector
Maximum EIRP	33 ± 1 dBm
Power Control	UL Open-loop/Closed-loop Power Control, DL Power Allocation (3GPP TS 36.213 compliant)

PHYSICAL

MTBF	≤ 150000 hours
MTTR	≤ 1 hour
Operating Temperature	23°F to 113°F / -5°C to 45°C
Storage Temperature	14°F to 122°F / -10°C to 50°C
Humidity	5% to 95% RH
Atmospheric Pressure	70 kPa to 106 kPa
Power Consumption	≤ 20 W
Weight	3.3 lb/1.5 kg
Dimensions (HxWxD)	8.7 x 8.7 x 1.9 inches 220 x 220 x 48 millimeters
Installation	Ceiling or wall mount

GLOBAL PART NUMBERS

GXC-API-100	G100 Indoor TDD Access Point -- LTE Release 15, 4x250mW (24 dBm), 1GE+1OPT, 3 dBi built-in antenna, 3.5 GHz (3550 MHz-3700 MHz), B42/43/48 <ul style="list-style-type: none"> • FCC Certification: 2AG32PBS31012 • IC Certification: 20982-PBS31010
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