



# CFW-3211 CFW-3212

## AurusLINK

Release 16 Self Install  
Indoor/Outdoor CPE

### Product Summary

- + Discreet low profile indoor/outdoor 5G/LTE CPE designed for self-installation by the consumer (professional installation for consumers or IoT applications also available)
- + One of the smallest 3GPP Release 16 Indoor/Outdoor CPEs in the industry
- + Supporting a wide range of 3GPP Frequency Bands from 600MHz up to 4.2GHz, it is suitable for deployment in the majority of regions globally
- + Includes an integrated 4x4 MIMO Low-Gain OMNI Directional Antenna
- + Powered via Power Over Ethernet it allows versatile connectivity up to 100m from a power source utilising the cabling supplied or off the shelf alternative cabling provided by the user.
- + PoE Injector included as standard
- + Mounts externally on windows with no requirement for additional tools
- + Remotely manageable (FM, CM, PM, SM) via BBF TR-069, SSH and HTTP/S
- + IP65 rated design for longevity, supporting a wide operating temperature range and harsh environments whilst maintaining an aesthetically pleasing design when viewed externally or internally
- + Additional consumer smartphone application available to provide efficient installation process suitable for a non-technical consumer audience





# CFW-3211 & CFW-3212

## Indoor/Outdoor CPE

## Technical Specifications

### Model Numbers

- +CFW-3211 (Global, excluding North America)
- +CFW-3212 (North America)

### 3GPP Release

- +Release 16

### Technologies Supported

- +LTE, 5G NSA (EN-DC), 5G SA
- +3GPP CN Options 1, 3x, 2
- +NSA Mode: PDCP UL & DL

### Frequency Bands – CFW-3211

#### NR

- +n1, n3, n5, n7, n8, n20, n28, n38, n40, n41, n75, n76, n77, n78

#### LTE

- +B1, B3, B5, B7, B8, B20, B28, B32, B38, B40, B41, B42, B43
- +Dynamic Spectrum Sharing Support on FDD bands

### Frequency Bands – CFW-3212

#### NR

- +n2, n5, n7, n12, n13, n14, n25, n26, n29, n30, n38, n41, n48, n66, n71, n77, n78

#### LTE

- +B2, B4, B5, B7, B12, B13, B14, B17, B25, B26, B29, B30, B38, B41, B42, B43, B48, B66, B71
- +Dynamic Spectrum Sharing Support on FDD bands

### Device Category

#### LTE

- +Uplink: 2CA Single TX, 256QAM
- +Downlink: 5CA MIMO 4x4, 256QAM

#### NR

- +Uplink: MIMO 2x2 Single Carrier Up to 100MHz, 256QAM
- +Downlink: MIMO 4x4 Dual Carrier Up to 120MHz, 256QAM

### 5G Subcarrier Spacing (SCS)

- +15kHz FDD Bands only
- +30kHz TDD Bands only

### Antenna Characteristics

#### Antenna Type

- +Dual-Polarized 4x4 MIMO OMNI-Directional

#### Frequency Coverage

- +600 – 4200MHz

#### Antenna Gain

- +Up to 5dBi

See the ANTENNA PERFORMANCE section for more details.

### CBRS Support (CFW-3212 Only)

- +CBRS End User Device (EUD)
- +Max 23dBm/10MHz EIRP

### Conducted RF Output Power

(Pre-Antenna)

#### LTE

- +23dBm single TX UL
- +26dBm single TX UL (B41, B42, B43 Only)

#### NR

- +NSA:
  - +23dBm single TX UL
- +SA:
  - +29dBm single TX UL (n41, n77, n78)
  - +26dBm single TX UL (n38)
  - +23dBm single TX UL all other bands
  - +2x26dBm MIMO 2x2 UL (n41, n77, n78)
  - +2x23dBm MIMO 2x2 UL (n38, n40)

### Interfaces

- +1 x 2.5Gbit Base-T Ethernet RJ45 port
- +BLE (Bluetooth Low Energy) for connection to installation app

### LEDS

- +3 x Multi-Colour LEDs indicating:
  - +4G/5G Connectivity
  - +Signal Strength Indicator
  - +Power/Ethernet Connectivity

### SIM Card Reader

- +Supports 4FF SIM card

### Operating System

- +Based on Embedded Linux

### Temperature

- +Operating temperature: -40°C to +55°C

### Enclosure

- +IP65 rated

### Dimensions & Weight

#### Dimensions

- +85 mm x 138.4 mm x 25 mm (excludes mounting bracket)

#### Weight

- +~240 g (excludes mounting bracket)

### Mounting Options

- +Glass Window Mount – Suitable for both outdoor and indoor positioning
- +Pole/Pipe/Rail/Wall mount solution available as an optional accessory
- +Desk mount solution available as an optional accessory

### Power

#### Supply

- +Power over Ethernet (Injector supplied)

#### Consumption

- +Peak operating power: 10.7W

### Cellular WAN Networking

- +Up to 6 APN Configurations
- +Up to 8 Bearers & Traffic Classes
- +4G/5G PCI Lock
- +Automatic/Manual cellular band selection
- +Automatic/Manual operator selection

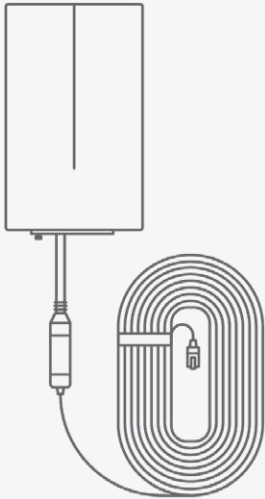
### Device Management

- +HTTP/S Web-based User Interface (Local & Remote Support)
- +TR-069/TR-143/TR-181 Support for CM, PM, FM, SM
- +OMA LwM2M
- +Firmware upgrade remotely Over-The-Air (TR-069)
- +Installation Support via Smartphone App
- +Diagnostics & Metrics
- +Secure Shell (SSH)
- +Remote syslog
- +Ping diagnostic tool
- +NTP Client
- +Geo Fence support
- +Service Assurance Diagnostic
- +Field Test screen

### LAN Network & Routing

- +IPv4, IPv6, IPv4v6
- +IP Passthrough / Handover
- +VLAN support
- +Static routing
- +DHCP server
- +Port forwarding
- +IP / MAC / Port filtering
- +Firewall
- +VPN Passthrough
- +Policy Based Routing

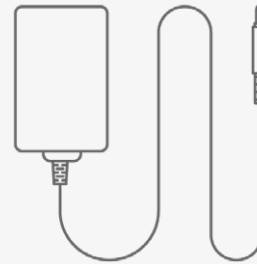
## What's In The Box



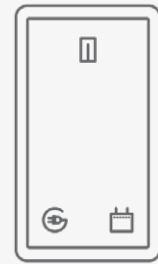
1 x AurusLINK CPE + Waterproof Extender + 5m Ethernet Cable



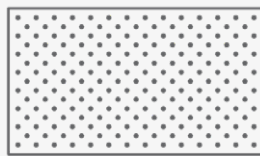
1 x Window Mount Bracket



1 x Power Adapter



1 x PoE Injector



1 x Compressed Sponge



1 x Lint-Free Cloth



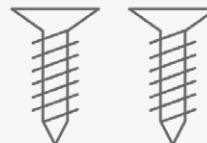
8 x Cable Clips



1 x Welcome Guide



1 x Information Sticker



1 x Wood Screws



8 x Hex Key + Screwdriver



# CFW-3211 & CFW-3212

## Indoor/Outdoor CPE

### Antenna Performance

#### Uplink Antenna

Frequency Range (MHz)	Uplink Antenna	Uplink Antenna (MIMO Only)
600 - 960	Antenna 3	N/A
1400 - 1500	N/A	N/A
1700 - 2500	Antenna 3	Antenna 2
2500 - 2700	Antenna 2	Antenna 3
3300 - 4200	Antenna 3	Antenna 2

#### 3GPP Low Bands (Sub 6GHz)

Frequency (MHz)	Antenna 2		Antenna 3	
	Gain (dBi)	Efficiency (%)	Gain (dBi)	Efficiency (%)
600	-2.01	25	-4.99	11
650	0.01	47	-3.03	21
700	-1.77	27	-0.81	34
760	-4.62	13	0.41	53
800	-6.56	9	0.07	48
850	-8.58	8	-0.61	37
900	-6.48	12	-3.96	18

#### 3GPP Mid Bands (Sub 6GHz)

Frequency (MHz)	Antenna 1		Antenna 2		Antenna 3		Antenna 4	
	Gain (dBi)	Efficiency (%)	Gain (dBi)	Efficiency (%)	Gain (dBi)	Efficiency (%)	Gain (dBi)	Efficiency (%)
1430	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
1470	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
1510	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA
1710	-0.69	21	-0.47	24	3.27	49	-3.12	15
1750	-1.69	15	-1.75	22	3.07	47	-1.68	16
1810	-3.44	11	-1.12	23	2.18	41	-0.43	25
1850	-5.84	10	0.66	44	2.23	43	-0.02	31
1910	-5.11	12	0.12	48	2.04	43	1.67	46
1950	-3.52	17	-0.30	34	2.13	44	2.15	50
2010	-2.92	21	1.99	45	1.30	39	2.59	51
2050	-2.82	16	3.04	52	-0.23	31	3.12	48
2110	0.09	28	2.98	56	-0.25	30	3.49	49
2150	-0.90	23	2.08	53	-0.92	24	2.81	43
2210	-2.67	16	1.61	49	0.84	24	1.36	42
2250	-4.22	14	1.51	49	1.20	26	2.55	47
2310	-4.73	11	1.34	45	2.39	32	1.76	40
2350	-3.36	12	1.08	46	2.92	36	1.49	42
2410	-4.68	12	1.84	53	3.36	46	0.70	38
2450	-4.45	12	1.88	56	3.48	50	0.06	37
2510	-0.36	19	1.80	57	3.85	56	0.10	37
2550	1.48	25	1.56	56	3.32	53	-0.92	33
2610	2.61	35	2.23	57	3.15	56	0.00	34
2650	2.57	39	2.43	56	2.88	56	0.20	34
2690	3.29	44	2.37	54	1.96	54	-0.05	32



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### Antenna Performance Cont.

#### 3GPP High Bands (Sub6GHz)

Frequency (MHz)	Antenna 1		Antenna 2		Antenna 3		Antenna 4	
	Gain (dBi)	Efficiency (%)	Gain (dBi)	Efficiency (%)	Gain (dBi)	Efficiency (%)	Gain (dBi)	Efficiency (%)
3300	3.14	39	2.84	42	2.92	41	2.63	49
3350	2.21	37	2.75	45	2.89	47	2.17	48
3400	1.40	37	3.08	52	2.47	51	2.17	48
3450	1.39	35	3.04	50	2.32	49	1.80	46
3500	1.75	36	2.83	47	2.26	47	1.46	46
3550	1.80	36	2.92	48	1.64	47	1.64	44
3600	1.38	34	2.92	48	1.36	45	1.93	41
3650	0.86	34	3.06	49	1.76	42	2.16	41
3700	0.52	35	2.91	47	2.12	42	2.48	40
3750	0.82	37	2.43	44	2.45	44	2.78	41
3800	1.17	36	2.41	44	2.62	45	2.95	42
3850	0.61	34	2.22	39	2.61	46	2.89	39
3900	0.68	34	2.84	37	2.83	48	3.17	39
3950	0.30	32	4.06	40	2.58	48	3.89	44
4000	-0.30	31	4.21	41	2.22	49	4.43	46
4050	-0.39	33	4.44	43	1.94	49	4.68	47
4100	-0.56	32	4.91	47	2.18	49	4.96	51
4150	-0.07	33	4.87	50	2.81	52	4.97	52
4200	-0.06	31	4.16	50	2.69	53	4.61	52





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## Optional Accessories

The following accessories provide additional mounting options for the Indoor/Outdoor CPE



### Wall/Pole/Pipe/Rail Mounting Bracket

The multi-purpose Wall/Pole/Rail mounting bracket allows fixture to a wide range of commonly found vertical structures around the home such as rain downpipes or balconies.

By removing the rubber straps, the same mounting bracket can also be attached directly to a wall using a power tool.



### Desk Mount

The Desk mount provides an easy installation solution for inside the home.

## Smartphone Installation

The smartphone app provides guided installation steps



### Aurora Smartphone Installation Application

The Android and iOS Smartphone application (freely available on appropriate APP stores) is designed to aid the consumer through the installation process.

From unboxing, through site survey measurements around the home, and the final installation, the Smartphone application provides all the guidance required to the end consumer.

Utilising easy to understand terminology and graphics, combined with non technical language and performance indicators, the application is suitable for non technical audiences, and can be translated into additional languages upon request.

Specifications are subject to change without notice. Images shown may vary slightly from the actual product.  
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