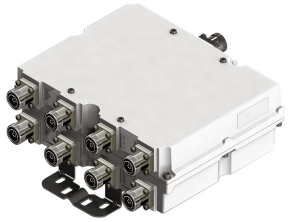
# E12F23P20



Twin Quadplexer 850//900//1800//2100 MHz, dc smart bypass, with 4.3-10 connectors

- Twin configuration
- Suitable for feeders cables reduction
- DC/AISG SMART bypass functionality
- New 4.3-10 connectors for improved PIM performance and size reduction

OBSOLETE

This product was discontinued on: December 31, 2024

## Product Classification

| | |
|---|---|
| **Product Type** | Quadplexer |

## General Specifications

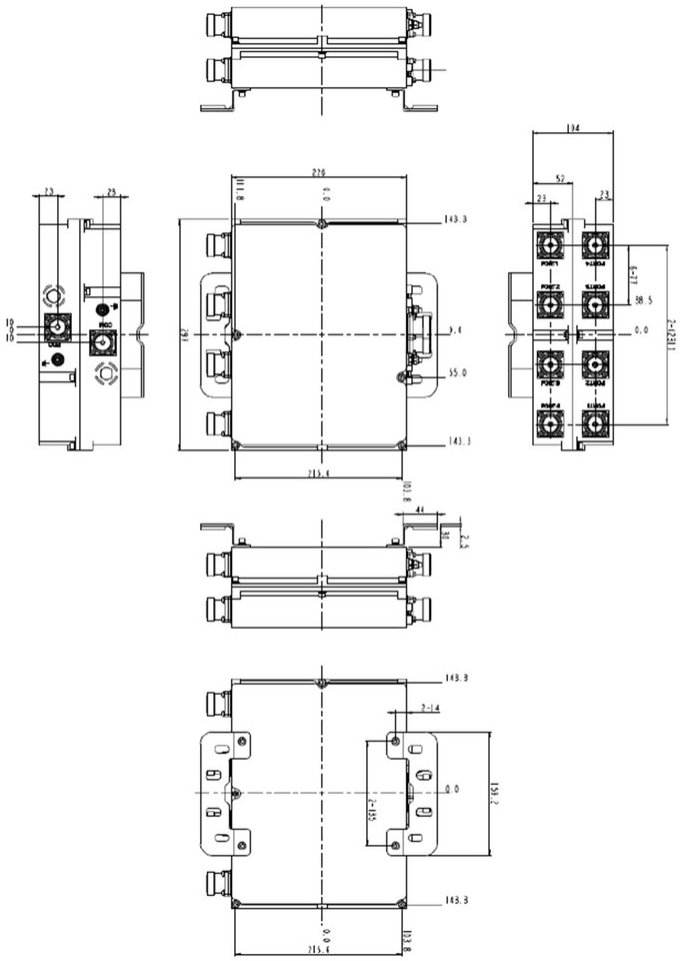
| | |
|---|---|
| **Color** | Gray |
| **Modularity** | 2-Twin |
| **Mounting** | Pole \| Wall |
| **Mounting Pipe Hardware** | Band clamps (2) |
| **RF Connector Interface** | 4.3-10 Female |
| **RF Connector Interface Body Style** | Medium neck |

## Dimensions

| | |
|---|---|
| **Height** | 104 mm \| 4.094 in |
| **Width** | 297 mm \| 11.693 in |
| **Depth** | 226 mm \| 8.898 in |
| **Mounting Pipe Diameter Range** | 42.6–122 mm |

## Outline Drawing

# E12F23P20



## Electrical Specifications

| | |
|---|---|
| **Impedance** | 50 ohm |
| **License Band, Band Pass** | APT 700 \| CEL 850 \| CEL 900 \| DCS 1800 \| EDD 800 \| IMT 2100 \| IMT 2600 \| LMR 800 \| LMR 900 \| TDD 2300 |

## Electrical Specifications, dc Power/Alarm

| | |
|---|---|
| **dc/AISG Pass-through Method** | Auto sensing |
| **dc/AISG Pass-through Path** | Auto sensing circuitry detects dc/AISG signal presence and selects path |
| **dc/AISG Pass-through, combiner** | dc Smart Bypass |
| **dc/AISG Pass-through, demultiplexer** | dc Smart Bypass |
| **Lightning Surge Current** | 5 kA |
| **Lightning Surge Current Waveform** | 8/20 waveform |

# E12F23P20

## Electrical Specifications, AISG

| | |
|---|---|
| **AISG Carrier** | 2176 KHz ± 100 ppm |
| **Insertion Loss, maximum** | 1 dB |
| **Return Loss, minimum** | 10 dB |

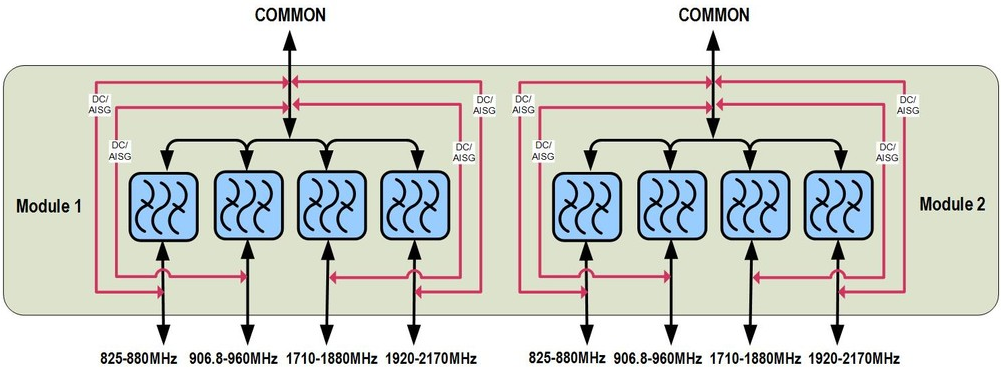
## Electrical Specifications

| **Sub-module** | **1 \| 2** | **1 \| 2** | **1 \| 2** | **1 \| 2** |
|---|---|---|---|---|
| **Branch** | 1 | 2 | 3 | 4 |
| **Port Designation** | PORT 1 825-880 | PORT 2 906.8-960 | PORT 3 1710-1880 | PORT 4 1920-2170 |
| **License Band** | CEL 850, Band Pass | CEL 900, Band Pass<br>LMR 900, Band Pass | | IMT 2100, Band Pass |

## Electrical Specifications, Band Pass

| **Frequency Range, MHz** | **825–880** | **906.8–960** | **1710–1880** | **1920–2170** |
|---|---|---|---|---|
| **Insertion Loss, maximum, dB** | 0.45 | 0.45 | 0.3 | 0.3 |
| **Return Loss, minimum, dB** | 18 | 18 | 18 | 18 |
| **Isolation, minimum, dB** | 50 | 50 | 50 | 50 |
| **Input Power, RMS, maximum, W** | 250 | 250 | 250 | 250 |
| **Input Power, PEP, maximum, W** | 2500 | 2500 | 2500 | 2500 |
| **3rd Order PIM, typical, dBc** | -150 | -150 | -150 | -150 |
| **3rd Order PIM Test Method** | Two +43 dBm carriers | Two +43 dBm carriers | Two +43 dBm carriers | Two +43 dBm carriers |

## Block Diagram




## Mechanical Specifications

| | |
|---|---|
| **Wind Speed, maximum** | 216 km/h (134 mph) |

# E12F23P20

## Environmental Specifications

| | |
|---|---|
| **Operating Temperature** | -40 °C to +65 °C (-40 °F to +149 °F) |
| **Relative Humidity** | 15%–100% |
| **Corrosion Test Method** | IEC 60068-2-11, 30 days |
| **Ingress Protection Test Method** | IEC 60529:2001, IP67 |
| **Vibration Test Method** | IEC 60068-2-6 |

## Packaging and Weights

| | |
|---|---|
| **Included** | Mounting hardware |
| **Weight, net** | 9.4 kg \| 20.723 lb |