

CBC426-DS-43 | E14F05P30



Diplexer, 380–960 MHz/1695–2690 MHz,dc Sense,4.3-10

- BTS-to-feeder and feeder-to-antenna application
- New 4.3-10 connectors for improved PIM performance and size reduction
- Automatic dc switching with dc sense
- Convertible mounting brackets

Product Classification

Product Type Diplexer

General Specifications

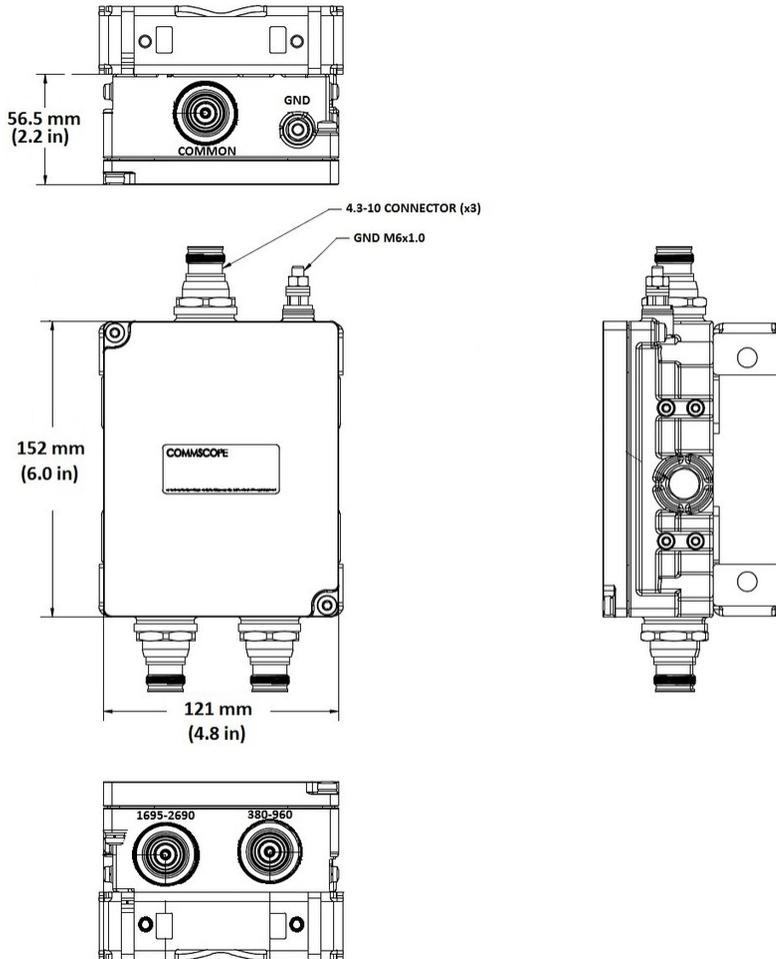
Product Family CBC426
Color Gray
Common Port Label ANT
Modularity 1-Single
Mounting Pole | Wall
Mounting Pipe Hardware Band clamps (2)
RF Connector Interface 4.3-10 Female
RF Connector Interface Body Style Long neck

Dimensions

Height 152 mm | 5.984 in
Width 121 mm | 4.764 in
Depth 56.5 mm | 2.224 in
Ground Screw Diameter 6 mm | 0.236 in
Mounting Pipe Diameter Range 40–160 mm

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Outline Drawing



Electrical Specifications

Impedance

50 ohm

License Band, Band Pass

APT 700 | AWS 1700 | CEL 850 | CEL 900 | DCS 1800 | EDD 800 | IMT 2100 | IMT 2600 | LMR 750 | LMR 800 | LMR 900 | PCS 1900 | TDD 1900 | TDD 2000 | TDD 2300 | TDD 2600 | USA 600 | USA 700 | USA 750 | WCS 2300

Electrical Specifications, Common Port

Composite Power, RMS

250 W

Electrical Specifications, dc Power/Alarm

dc/AISG Pass-through Method

Auto sensing

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| | |
|---|-----------------|
| dc/AISG Pass-through Path | See logic table |
| Lightning Surge Current | 10 kA |
| Lightning Surge Current Waveform | 8/20 waveform |
| Voltage | 7–30 Vdc |

Electrical Specifications, AISG

| | |
|--------------------------------|--------------------|
| AISG Carrier | 2176 KHz ± 100 ppm |
| Insertion Loss, maximum | 1 dB |
| Return Loss, minimum | 15 dB |

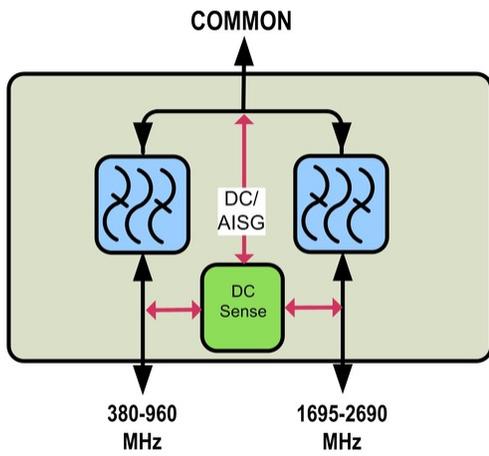
Electrical Specifications

| | | |
|-------------------------|--|--|
| Sub-module | 1 | 1 |
| Branch | 1 | 2 |
| Port Designation | 380-960 | 1695-2690 |
| License Band | LMR 750, Band Pass LMR 800, Band Pass USA 700, Band Pass USA 750, Band Pass USA 600, Band Pass CEL 850, Band Pass | PCS 1900, Band Pass WCS 2300, Band Pass AWS 1700, Band Pass TDD 2600, Band Pass |

Electrical Specifications, Band Pass

| | | |
|---------------------------------------|-------------------|-------------------|
| Frequency Range, MHz | 380–960 | 1695–2690 |
| Insertion Loss, typical, dB | 0.1 | 0.1 |
| Total Group Delay, typical, ns | 2 | 4 |
| Return Loss, typical, dB | 24 | 22 |
| Isolation, typical, dB | 65 | 63 |
| Input Power, RMS, maximum, W | 200 | 200 |
| Input Power, PEP, maximum, W | 2000 | 2000 |
| 3rd Order PIM, minimum, dBc | -161 | -161 |
| 3rd Order PIM Test Method | 2 x 20 W CW tones | 2 x 20 W CW tones |

Block Diagram



Logic Table

| Combining Mode Operation (Ground Based) | | | |
|---|--------------------|--------|---------------------------------|
| RF Ports Input DC Voltage | | | |
| 380 to 960 MHz | 1695 to 2690 MHz | COMMON | DC/AISG Path Selection |
| $7 \leq V \leq 30$ | < 7 | < 7 | 380 to 960 MHz to COMMON "ON" |
| < 7 | $7 \leq V \leq 30$ | < 7 | 1695 to 2690 MHz to COMMON "ON" |
| $7 \leq V \leq 30$ | $7 \leq V \leq 30$ | < 7 | 1695 to 2690 MHz to COMMON "ON" |

| Splitting Mode Operation (Tower Top) | | | |
|--------------------------------------|------------------|--------------------|--------------------------|
| RF Ports Impedance DC (Load sensing) | | | |
| 380 to 960 MHz | 1695 to 2690 MHz | COMMON | DC/AISG Path Selection |
| open/load | short | $7 \leq V \leq 30$ | COMMON to 380-960 "ON" |
| short | open/load | $7 \leq V \leq 30$ | COMMON to 1695-2690 "ON" |
| open/load | open/load | $7 \leq V \leq 30$ | ALL ports ON |
| short | short | $7 \leq V \leq 30$ | ALL ports OFF |

Environmental Specifications

| | |
|---------------------------------------|--------------------------------------|
| Operating Temperature | -40 °C to +65 °C (-40 °F to +149 °F) |
| Relative Humidity | 5%–100% |
| Corrosion Test Method | IEC 60068-2-11, 30 days |
| Ingress Protection Test Method | IEC 60529:2001, IP67 |

Packaging and Weights

| | |
|--|-------------------|
| Included | Mounting hardware |
| Mounting Hardware Weight | 0.6 kg 1.323 lb |
| Volume | 1 L |
| Weight, without mounting hardware | 1.6 kg 3.527 lb |

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |