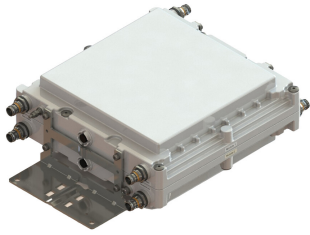


TD-850AB-LTE15-43 | E14Z00P08



Twin In-band Diplexer A&B blocks 850 MHz, DC Sense

- Enables LTE carrier to share the RF path with other CDMA/EVDO services
- LTE port supports the use of dual band 700/850 radios or diplexed radio ports
- Optimized for 5MHz LTE carrier on A-Block CH 2435 and 10MHz LTE carrier on B-Block CH 2560
- Supports 3 CDMA/EVDO carriers F1(283), F2(242), and F3(201)
- Narrow guard band to maximize utilization of licensed spectrum
- Automatic dc switching with dc sense

Product Classification

Product Type In-Band Combiner

General Specifications

Connector Interface 4.3-10 Female

Dimensions

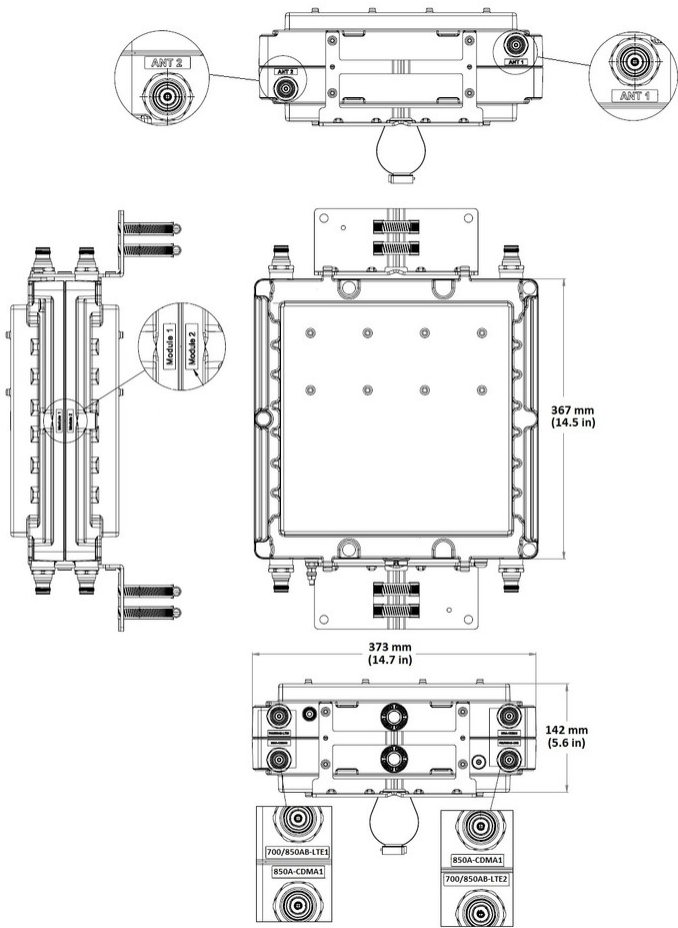
Height 367 mm | 14.449 in

Width 373 mm | 14.685 in

Depth 142 mm | 5.591 in

Ground Screw Diameter 6 mm | 0.236 in

Outline Drawing



Electrical Specifications

5th Order IMD Test Method	Two +43 dBm carriers
5th Order IMD, maximum	-161 dBc
License Band	CEL 850 USA 700 USA 750
Lightning Surge Current	10 kA
Lightning Surge Current Waveform	8/20 waveform

Electrical Specifications, Rx (Uplink)

Frequency Band	777 – 787 MHz 825 – 830 MHz 835 – 845 MHz
Return Loss, minimum	18 dB
Isolation, minimum	28 dB
Port Designation	700/850 LTE

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Total Group Delay, maximum 360 ns

Electrical Specifications 2, Rx (Uplink)

Frequency Band 830.415 – 834.105 MHz

Group Delay Variation at Frequency, maximum 240 ns @ 1.25 MHz

Isolation, minimum 28 dB

Port Designation 850A-CDMA

Total Group Delay, maximum 40 ns

Return Loss, minimum 18 dB

Electrical Specifications, Tx (Downlink)

Frequency Band 746 – 756 MHz | 870 – 875 MHz | 880 – 890 MHz

Isolation, minimum 28 dB

Input Power, PEP, maximum 1500 W

Input Power, RMS, maximum 120 W

Return Loss, minimum 18 dB

Electrical Specifications 2, Tx (Downlink)

Frequency Band 875.415 – 879.105 MHz

Group Delay Variation at Frequency, maximum 240 ns @ 1.25 MHz

Input Power, PEP, maximum 1500 W

Input Power, RMS, maximum 120 W

Return Loss, minimum 18 dB

Total Group Delay, maximum 350 ns

Electrical Performance

Insertion Loss Specifications

850A-CDMA TO ANTENNA PORT		700/850AB-LTE TO ANTENNA PORT	
Channels	Insetion Loss (dB)	Channels	Insetion Loss (dB)
F1 (283)*	1.2 max	700MHz LTE	0.15 max
F2 (242)*	1.2 max	850 LTE CH2560*	0.5 max
F3 (201)*	1.5 max	850 LTE CH2435*	0.6 max

* Specifications are for the average of the freq. band

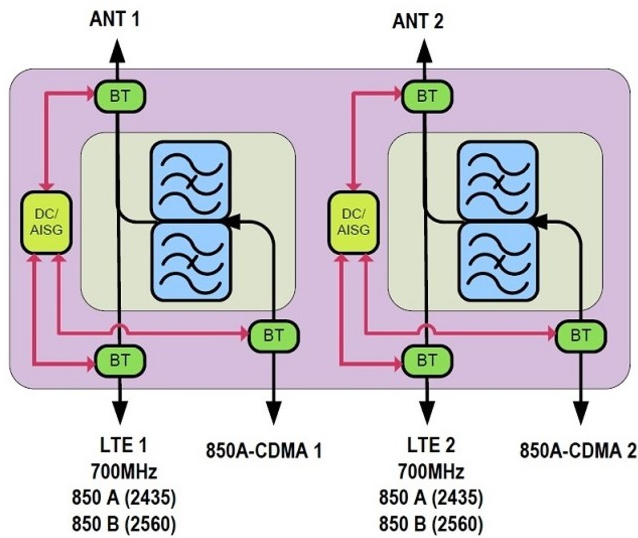
Frequency Map



Legend

Port 1 (LTE)
Port 2 (CDMA)
Guard Band

Block Diagram



Logic Table

DC input voltage		ANT Port
LTE Port	CDMA Port	DC/AISG path selection
<7	<7	All Ports OFF
7 ≤ V ≤ 30	<7	LTE Port to ANT Port ON CDMA Port to ANT OFF
<7	7 ≤ V ≤ 30	LTE Port to ANT Port OFF CDMA Port to ANT ON
7 ≤ V ≤ 30	7 ≤ V ≤ 30	All Ports OFF

Environmental Specifications

Operating Temperature -40 °C to +65 °C (-40 °F to +149 °F)

Ingress Protection Test Method IEC 60529:2001, IP67

Packaging and Weights

Weight, without mounting hardware 15.2 kg | 33.51 lb