

IBC-850-BF8-1PF

850 MHz LTE-CDMA In-Band Combiner



IBC-850-BF8-1PF

In-Band 850MHz B-Block combiner

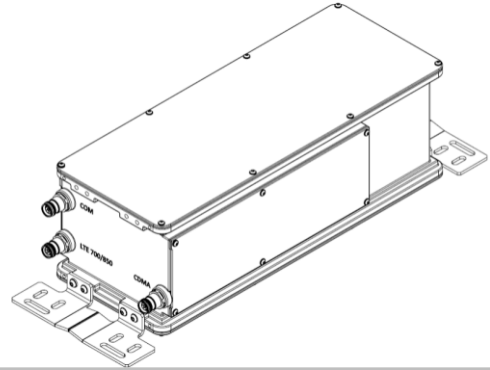
Zero Guard Band – No carriers lost

850 LTE (F4-F7) - 850 CDMA (F1-F3, F8)

LTE 700 Passing

Rack, pole, or wall mount

4.3-10 connectors



- Enables 850 CDMA and 850 LTE to share an antenna and feeder lines
- Supports Dual Band LTE: LTE 700 and LTE 850 through LTE port
- Up to 4 CDMA carriers and 5MHz LTE on 850 B-Block
- Low EVM (0.25%) for LTE and very low GD variation for CDMA guarantees no impact on CDMA or EVDO carriers
- Very low insertion loss leads to minimal impact on existing CDMA site coverage, and best possible LTE coverage
- High Isolation (>30dB) between CDMA and LTE radios

Electrical specifications, CDMA

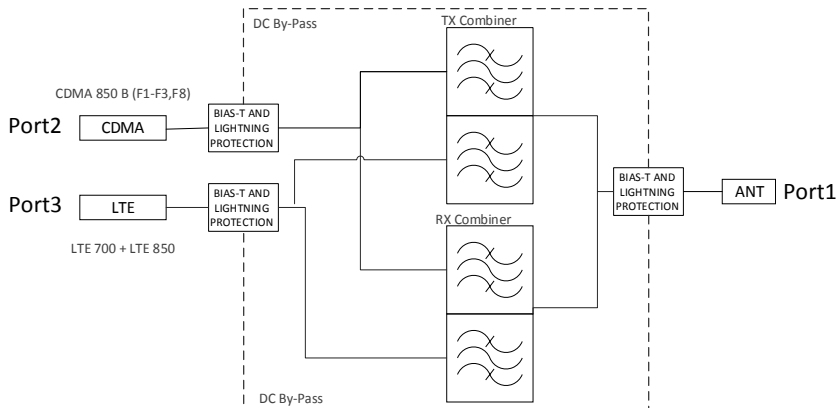
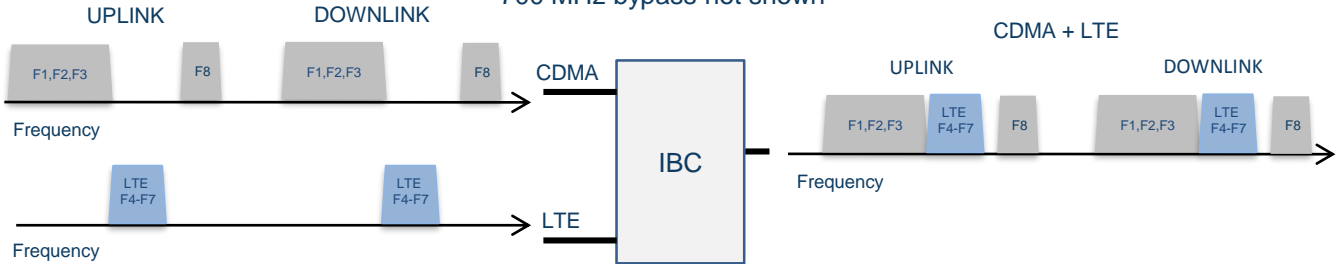
	F1	F2	F3	F8
DL				
Passband DL, MHz	(Ch. 384) 881.52	(Ch. 425) 882.75	(Ch. 466) 883.98	(Ch. 770) 893.1
Channel insertion loss, dB	0.65	0.65	0.75	1.0
Band edge loss, dB	0.7	0.7	1.1	1.15
GD , avg. ns	105	115	180	105
GD, max, ns	110	130	310	115
GD, variance over channel, ns	15	30	190	20
EVM max, %	0.5	1.0	5.0	0.9
UL				
Passband center UL, MHz	836.52	837.75	838.98	848.1
Channel insertion loss, dB	0.9	1.0	1.25	0.9
Band edge loss, dB	0.9	1.1	1.6	0.95
GD , avg. ns	105	130	250	90
GD, max, ns	110	160	410	105
GD, variance over channel, ns	15	50	250	30
DL and UL				
RL min, dB	18dB			
Isolation to LTE carrier, dB	> 30			
Avg. input power per port, W	200			
Input peak envelope power, W	3000			
P1M 2x+43 dBm, dBc	-156			
DC AISG pass	Yes			

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Electrical specifications, LTE 850	
Passband DL/UL, MHz	DL (Earfcn 2585) 887.5 MHz / UL (Earfcn 20585) 842.5 MHz 885.25 – 889.75 / 840.25 – 844.75
LTE carrier insertion loss, dB	0.7 (DL), 0.90 (UL)
Band edge loss max, dB	1.3 (DL), 2.05 (UL)
RL min, dB	18
Group delay, avg. ns	110
Group delay, DL/UL, max, ns	550 / 570
Group delay variance over carrier, DL / UL, ns	500 / 500
EVM, DL LTE centered 887.5 MHz	< 0.03%, center RB < 0.25%, full LTE transmission BW EVM
LTE 700 and 850	
700 LTE passband, MHz	698 – 787
700 LTE insertion loss max, dB	0.55
700 LTE RL min, dB	18
Isolation to CDMA channels, dB	>30
Avg. input power per port, W	200
Input peak envelope power, W	3000
PIM 2x+43 dBm, dBc	-156
DC AISG Pass	Yes

850 CDMA + 850 LTE spectrum illustration
700 MHz bypass not shown

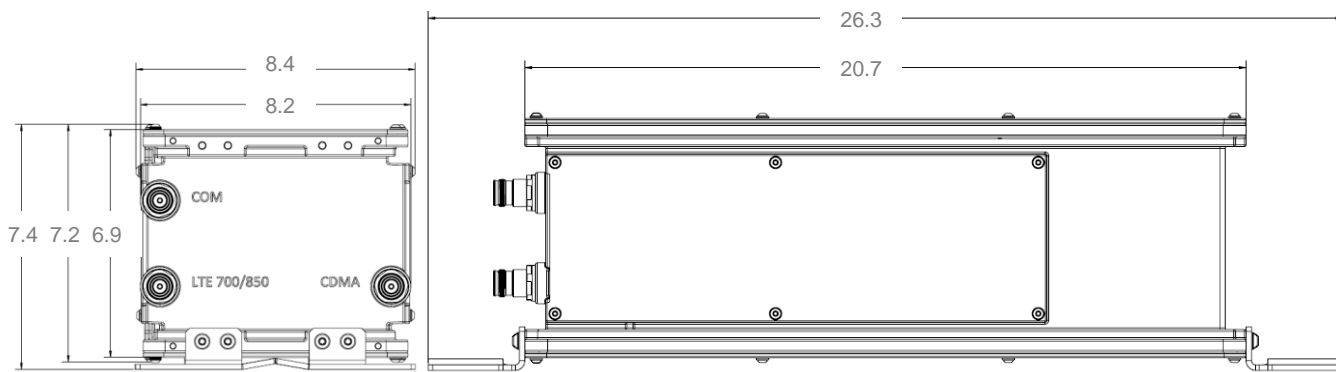


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Mechanical specifications

Connectors RF	4.3-10 (F)
Ground stud	M6 x 1 (hex nut included)
Connectors quantity	3
Dimensions, excluding brackets and connectors L x W x H mm (in.)	495 x 205 x 180 (19.5 x 8 x 7.5)
Weight: kg (lb)	21.2 (43.5)
Mounting	Pole/wall bracket included. 19" rack mount HW included optional.



Environmental specifications

Environmental rating	ETSI EN 300 019 class 4.1, RoHS
Ingress protection	IP66, unmated
Temperature range, °C	-40 to +65
Temperature range, °F	-40 to +149
Lightning protection all ports	RF port: ±10 kA max. (8/20 us), IEC 61000-4-5
Altitude	3,000 m max. 10,000 ft max.
Mean time between failures (MTBF)	>10 ⁶

Ordering information

IBC-850-BF8-1PF	In-band combiner, 850 MHz full B-block, single, DC/AISG-pass
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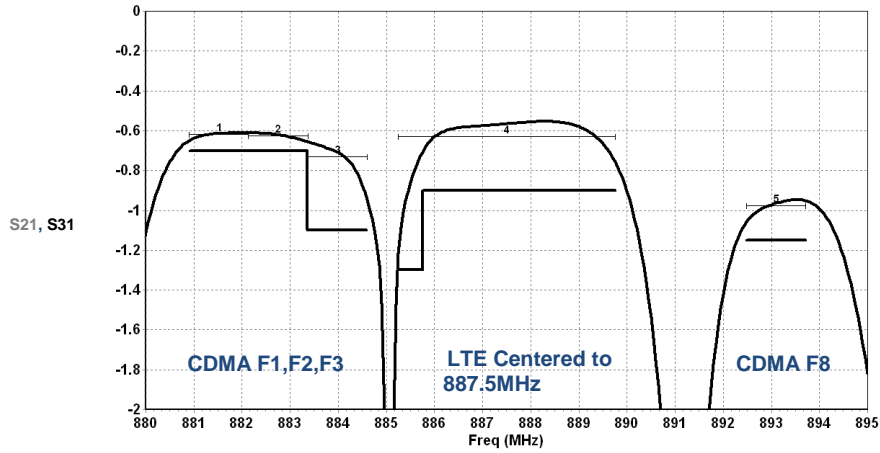
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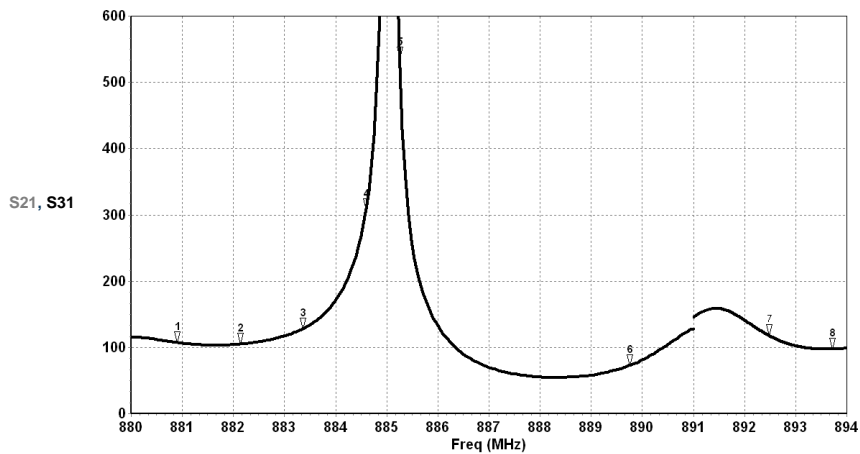


850 MHz DL sweep plots

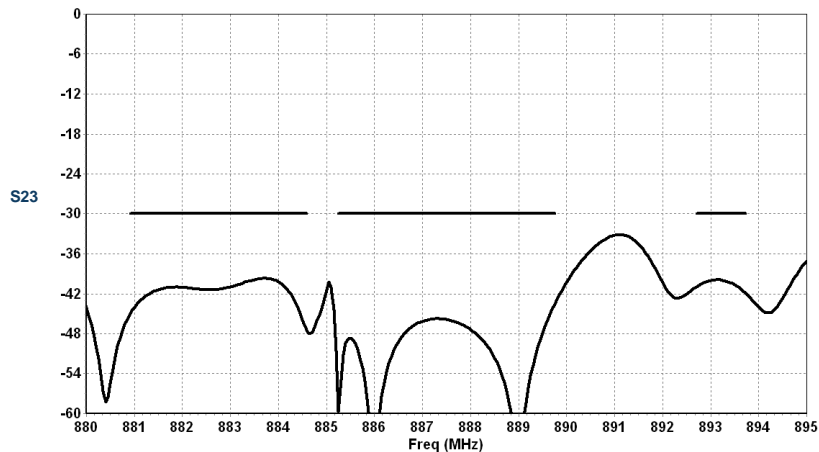
CDMA and LTE DL insertion loss



CDMA and LTE DL group delay

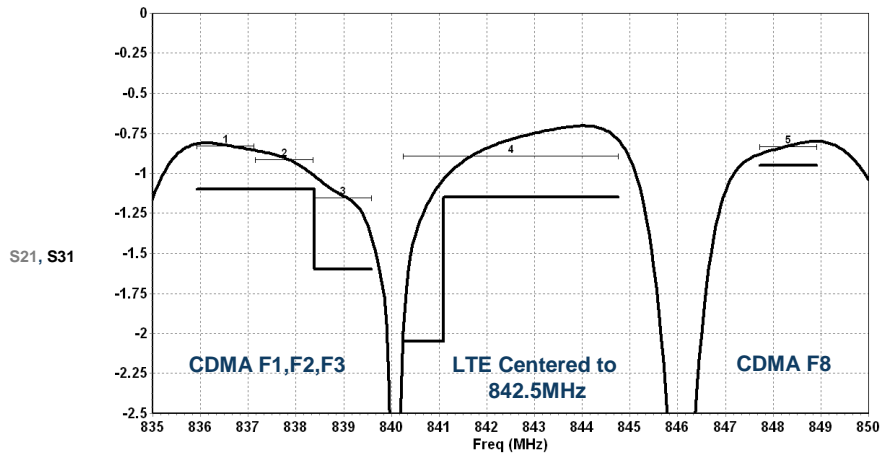


CDMA to LTE DL isolation

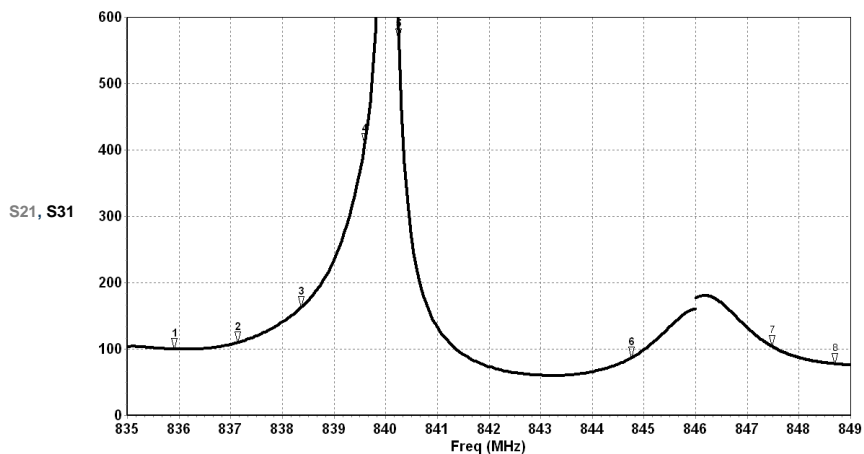


850 MHz UL sweep plots

CDMA and LTE UL Insertion Loss



CDMA and LTE UL Group Delay



CDMA to LTE UL Isolation

