

UFD065A

Band 65 Femto-Cell Duplexer

Features

- Low Loss with High Rejection
- Superior power handling and reliability

Applications

- Wireless Infrastructure applications including high-performance carrier-grade femto-cells.



Part Dimensions: 24.1 × 6.3 × 4.6 mm • 2.6 g
Materials: Ag plated ceramic block with tin plated brass shield

Description

Surface mount ceramic duplexer supports a universal footprint across all FDD frequency bands enabling the use of a common system PCB. Provides superior rejection, insertion loss, reliability, as well as both peak and average power handling compared to other duplexer technologies.

Electrical Specifications

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	3.0 Watt max
Peak Input Power	-	-	-	20 Watt max

Antenna to UL Response

Passband Insertion Loss (5 MHz avg)	1920-2010		1.6 dB max	1.8 dB max
Passband Return Loss	1920-2010		11 dB min	11 dB min
Attenuation:	2110-2200		52 dB min	52 dB min

DL to Antenna Response

Passband Insertion Loss (5 MHz avg)	2110-2200		1.6 dB max	1.8 dB max
Passband Return Loss	2110-2200		11 dB min	11 dB min
Attenuation:	1920-2010		52 dB min	52 dB min

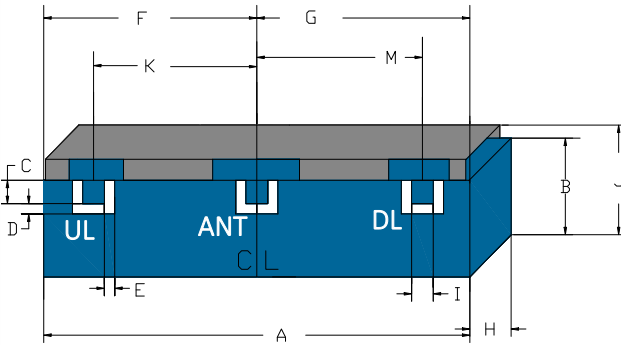
DL to UL Response

Attenuation for UL band	1920-2010		52 dB min	52 dB min
Attenuation for DL band	2110-2200		52 dB min	52 dB min

Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

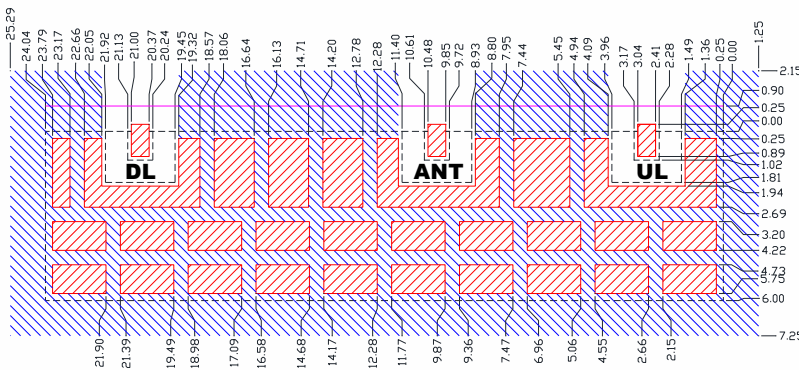
Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	24.04	Max
B	5.40	Max
C	1.02	0.13
D	0.79	0.13
E	0.79	0.13
F	10.16	0.13
G	13.88	0.13
H	4.60	Max
I	0.89	0.13
J	6.30	Max
K	7.44	0.13
M	10.52	0.13

PCB Layout



- Shield
- Filter Outline
- Exposed Conductor
- Solder Resist Over Dielectric
- Solder Resist Over Conductor

IMPORTANT: Please assure ≥ 20 mils (0.5mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the required ground plane.

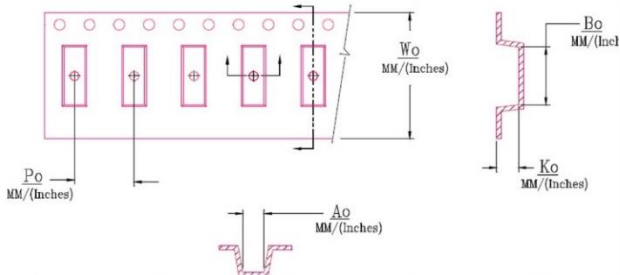
Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.

Recommended solder: 4-6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

Packaging and Marking

Dimension	Units	Spec.	Product Marking
Reel Diameter	mm	330	<div style="border: 1px solid black; padding: 2px; display: inline-block;"> CTS 065 YWW </div>
Reel Weight	kg	2.3	
Reel Quantity	ea.	500	

Customer Feed Direction → → →



W_0	A_0	B_0	K_0	P_0
1.732 in	0.271 in	0.974 in	0.195 in	0.472 in
44.0 mm	6.88 mm	24.74 mm	4.95 mm	12.0 mm

Electrical Response

