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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Multiband Chip Antenna

ACA-108-T



RoHS / RoHS II Compliant



4.0 x 2.0 x 1.2 mm

Moisture Sensitivity Level (MSL) – MSL = 1

FEATURES:

- Chip Antenna covering Quad bands from 1550MHz to 2700MHz
- Matching via lumped elements with single footprint
- Constructed from solid dielectric ceramic material
- Suitable for RoHS compliant reflow
- Peak Gain 0.93 ~ 2.98dBi (dependant on band)
- Average Gain -0.51 ~ -1.10dBi (dependant on band)
- VSWR 3.0 : 1 max
- Size – 4.0 x 2.0 x 1.2mm (0.157 x 0.078 x 0.047 inch)
- Non Ground Mounting type
- Linear Polarization
- Matched to 50 Ohm.

APPLICATIONS:

- 1550 ~ 1610MHz & 2400 ~ 2485MHz
 - GPS
 - Bluetooth
- 1920 ~ 2170MHz & 1930 ~ 1990MHz & 2110 ~ 2155MHz
 - WCDMA
 - US PCS Rx
 - AWS Rx
- 2300 ~ 2390MHz & 2400 ~ 2485MHz & 2605 ~ 2655MHz
 - WiBro
 - Bluetooth
 - DMB
- 2500 ~ 2700MHz
 - WiMax

STANDARD SPECIFICATIONS

Maximum Ratings

Item	Value
ESD Voltage	15kV [HBM Class 3B]
Operating Temperature Range	-40°C to + 85°C
Storage Temperature Range	-40°C to + 85°C

3D Electrical Characteristics for 1550 ~ 2485MHz

ITEM		SPECIFICATION					
Frequency Range		1550 ~ 2485MHz					
VSWR		3: 1 Max					
Polarization		Linear					
Frequency [MHz]		1550	1580	1610	2400	2445	2485
Gain [dBi]	Peak	2.43	2.98	0.93	1.60	2.46	2.38
	Average	-1.78	-1.06	-2.80	-2.19	-1.74	-2.59
Efficiency [%]		66.43	78.38	52.63	60.45	67.15	55.22

3D Electrical Characteristics for 1920 ~ 2170MHz

ITEM		SPECIFICATION			
Frequency Range		1920 ~ 2170MHz			
VSWR		3: 1 Max			
Polarization		Linear			
Frequency [MHz]		1920	1980	2110	2170
Gain [dBi]	Peak	1.76	2.26	1.63	1.83
	Average	-2.06	-1.65	-2.60	-2.16
Efficiency [%]		62.31	68.52	55.08	60.89





4.0 x 2.0 x 1.2 mm

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3D Electrical Characteristics for 2300 ~ 2655MHz

ITEM		SPECIFICATION					
Frequency Range		2300 ~ 2655MHz					
VSWR		3: 1 Max					
Polarization		Linear					
Frequency [MHz]		2300	2390	2400	2485	2605	2655
Gain [dBi]	Peak	1.43	2.69	2.52	1.33	1.09	1.86
	Average	-2.34	-1.37	-1.60	-2.54	-2.47	-2.33
Efficiency [%]		58.51	73.13	69.25	55.78	56.74	58.63

3D Electrical Characteristics for 2550 ~ 2700MHz

ITEM		SPECIFICATION				
Frequency Range		2500 ~ 2700MHz				
VSWR		3: 1 Max				
Polarization		Linear				
Frequency [MHz]		2500	2550	2600	2650	2700
Gain [dBi]	Peak	2.11	2.34	2.47	2.88	1.95
	Average	-1.68	-1.22	-1.03	-0.51	-1.37
Efficiency [%]		68.10	75.67	78.97	89.10	73.11

▷ PART IDENTIFICATION:

ACA-108- 

Packaging

Blank: Bulk

T: Tape and Reel



4.0 x 2.0 x 1.2 mm

ACA-108-T



RoHS / RoHS II Compliant

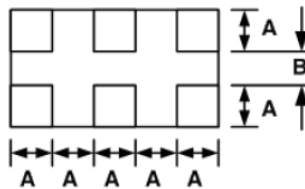


OUTLINE DIMENSIONS:

Chip Antenna Dimension

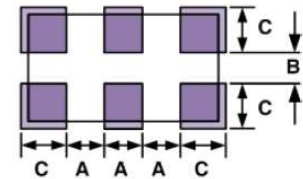


Chip Antenna Soldering Pad Dimension



Recommended Land Pattern

PCB Soldering Land Dimension



Parameter	A	B	C
Value (mm)	0.8	0.4	0.9

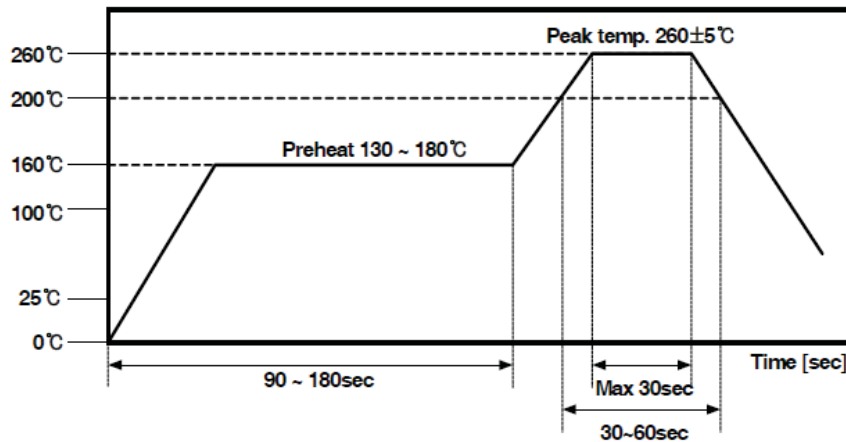
Unless specified tolerances are $\pm 0.05\text{mm}$

Parameter	L	W	T	A	B
Value (mm)	$4.0 \pm 0.10\text{mm}$	$2.0 \pm 0.10\text{mm}$	$1.2 \pm 0.10\text{mm}$	0.8	0.4

Unless specified tolerances are $\pm 0.05\text{mm}$

(Dimensions: mm)

REFLOW PROFILE:



Manual Soldering

	Condition
Pre-Heating Temperature	120 °C , 60 ~ 300 sec
Soldering Temperature	340°C \pm 5°C , 5 sec max per each terminal

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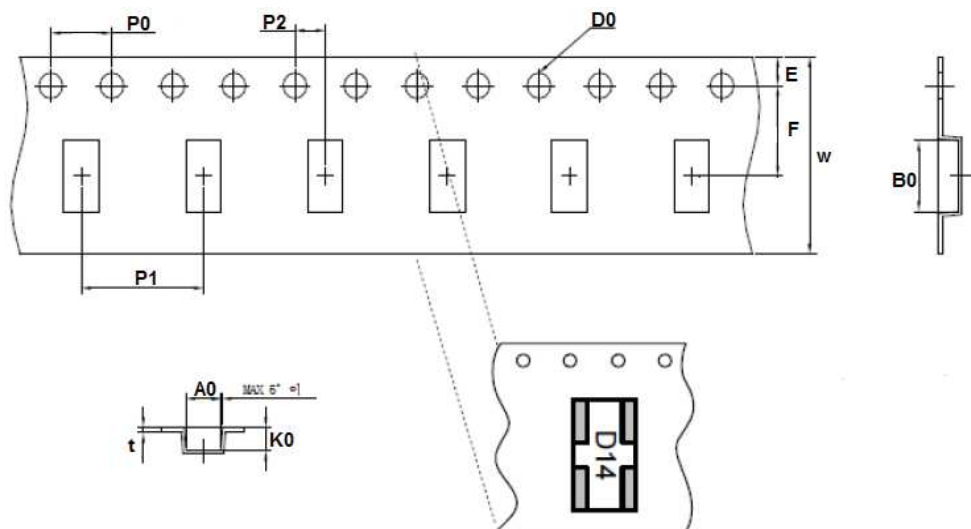
 RoHS / RoHS II Compliant



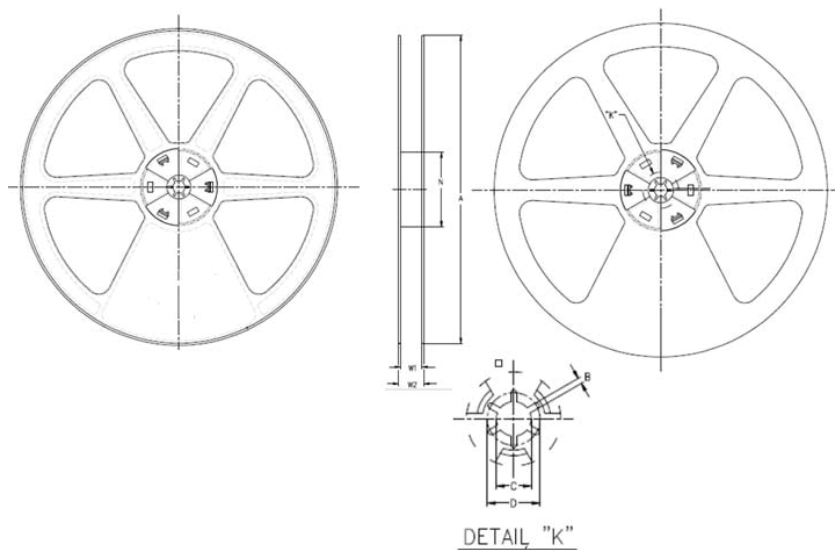
4.0 x 2.0 x 1.2 mm

TAPE & REEL:

Packaging: 5,000 Units Per Reel



A0	2.30±0.10	E	1.75±0.10
B0	4.30±0.10	F	5.50
K0	1.35±0.10	t	0.3±0.05
D0	Ø1.55±0.05	w	12.00±0.30
P0	4.0±0.10	P1	8.00
P2	2.00		



Size	12mm Reel
A	330 +0.2 / -2.0mm
B	2.0 +0.5 / -0.2mm
C	13.0 +0.5 / -0.0mm
D	20.2mm Min
N	80 +3.0 / -0.0mm
W1	12.4 +3.0 / -0.0mm
W2	16.4 +2.0 / -2.0mm

(Dimensions: mm)

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