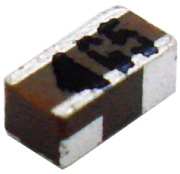
BEIDOU / GPS / GNSS Chip Antenna



3.0 x 1.5 x 1.2 mm

ACA-106-T

RoHS / RoHS II Compliant

Moisture Sensitivity Level (MSL) – MSL = 1

FEATURES:

- Chip Antenna covering BEIDOU & GPS & GNSS bands from 1555MHz to 1610MHz
- Matching via lumped elements with single footprint
- Constructed from solid dielectric ceramic material
- Suitable for RoHS compliant reflow
- Peak Gain 2.56 ~ 3.28dBi (dependant on band)
- Average Gain -1.59 ~ -0.83dBi (dependant on band)
- VSWR 3.0 : 1 max
- Size – 3.0 x 1.5 x 1.2mm (0.11 x 0.059 x 0.047 inch)
- Non Ground Mounting type
- Linear Polarization
- Matched to 50 Ohm.

APPLICATIONS:

- 1555 ~ 1565 MHz
  - Chinese BEIDOU band
  - 1.561098 GHz BEIDOU Band (B1)
- 1570 ~ 1580 MHz
  - GPS band
  - 1.57542 GHz GPS (L1 signal)
- 1565 ~ 1605 MHz
  - GPS and GNSS bands
  - 1.559 ~ 1.592 GHz GALILEO (E2-L1-E11)
  - 1.602 GHz GLONASS
- 1560 ~ 1610 MHz
  - BEIDOU, GPS and GNSS bands
  - 1.561098 GHz BEIDOU Band (B1)
  - 1.57542 GHz GPS (L1 signal)
  - 1.602 GHz GLONASS

STANDARD SPECIFICATIONS

Maximum Ratings

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

3D Electrical Characteristics for BEIDOU band

ITEM		SPECIFICATION		
Frequency Range		1555 ~ 1565MHz		
VSWR		3: 1 Max		
Polarization		Linear		
Frequency [MHz]		1555	1560	1565
Gain [dBi]	Peak	4.01	3.85	3.75
	Average	-1.28	-1.32	-1.43
Efficiency [%]		74.65	73.95	72.11

3D Electrical Characteristics ACA-106-T for GPS band.

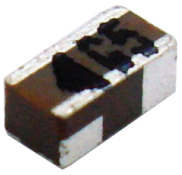
ITEM		SPECIFICATION		
Frequency Range		1570 ~ 1580MHz		
VSWR		3: 1 Max		
Polarization		Linear		
Frequency [MHz]		1570	1575	1580
Gain [dBi]	Peak	2.70	2.56	2.73
	Average	-0.73	-0.83	-0.62
Efficiency [%]		84.55	82.63	86.73

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BEIDOU / GPS / GNSS Chip Antenna

ACA-106-T

RoHS / RoHS II Compliant



3.0 x 1.5 x 1.2 mm

3D Electrical Characteristics for GPS & GNSS bands.

ITEM		SPECIFICATION				
Frequency Range		1565 ~ 1605MHz				
VSWR		3: 1 Max				
Polarization		Linear				
Frequency [MHz]		1565	1575	1585	1595	1605
Gain [dBi]	Peak	3.35	3.53	3.60	4.02	3.59
	Average	-1.49	-1.59	-1.59	-1.22	-1.68
Efficiency [%]		71.12	69.53	69.51	75.59	68.00

3D Electrical Characteristics for BEIDOU, GPS & GNSS bands.

ITEM		SPECIFICATION					
Frequency Range		1560 ~ 1610MHz					
VSWR		3: 1 Max					
Polarization		Linear					
Frequency [MHz]		1560	1562	1574	1576	1598	1606
Gain [dBi]	Peak	1.99	2.20	3.29	3.40	3.59	3.27
	Average	-2.54	-2.47	-1.61	-1.51	-1.37	-1.93
Efficiency [%]		55.77	56.76	69.18	70.80	73.07	64.22

PART IDENTIFICATION:

ACA-106-□

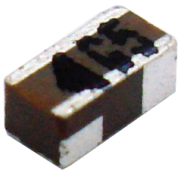
Packaging
Blank: Bulk
T: Tape and Reel

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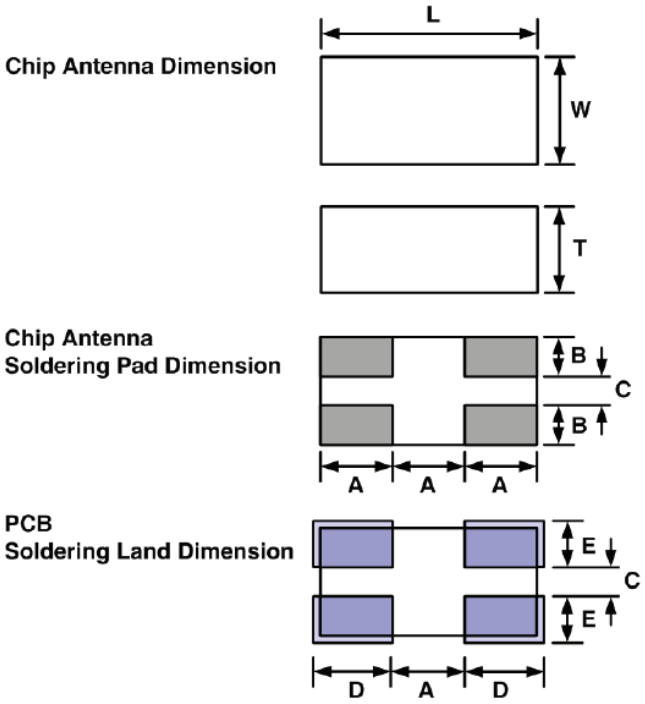
ACA-106-T

RoHS / RoHS II Compliant



3.0 x 1.5 x 1.2 mm

OUTLINE DIMENSIONS:

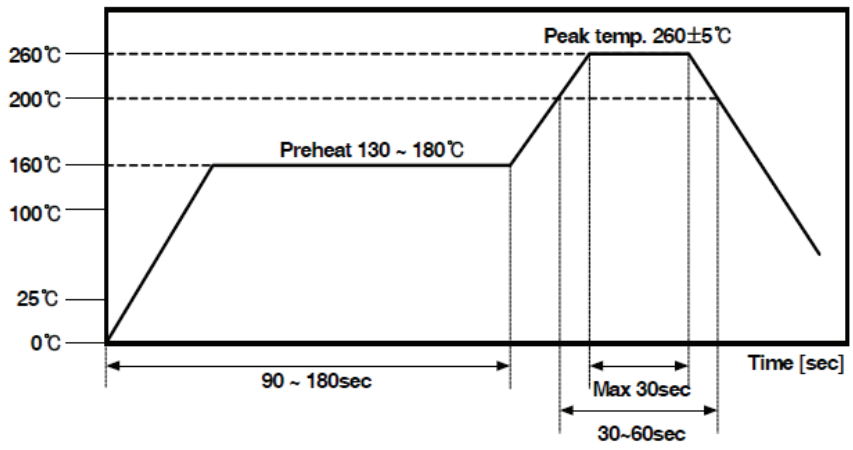


Parameter	L	W	T	A	B	C	D	E
Value [mm]	3.0±0.1	1.5±0.1	1.2±0.1	1.0	0.55	0.4	1.1	0.65

Unless Specified tolerances are ± 0.05 mm

(Dimensions: mm)

REFLOW PROFILE:



Manual Soldering

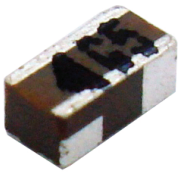
Manual Soldering	Condition
Pre-Heating Temperature	120 °C , 60 ~ 300 sec
Soldering Temperature	340°C ± 5°C , 5 sec max per each terminal

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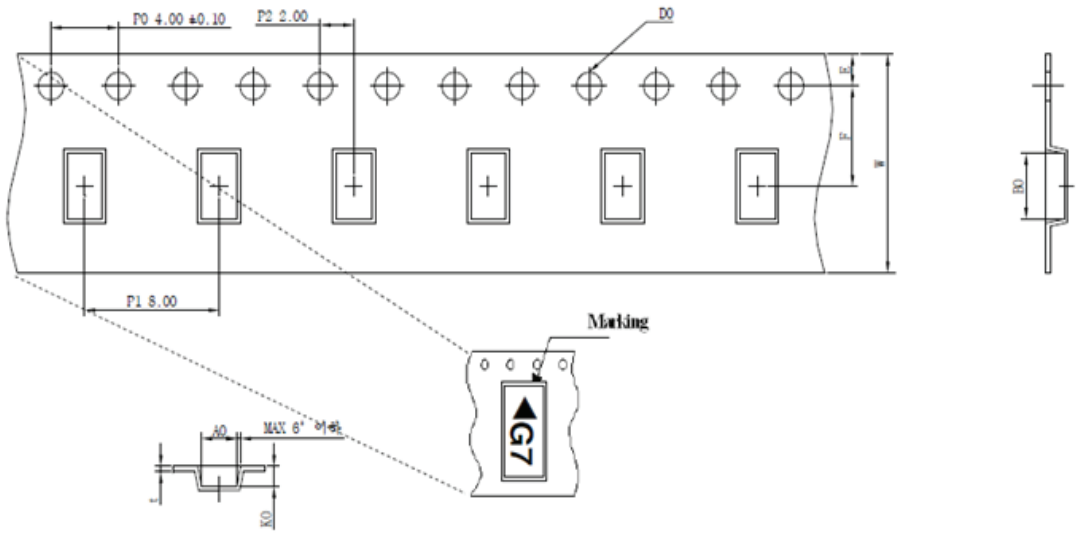
RoHS / RoHS II Compliant



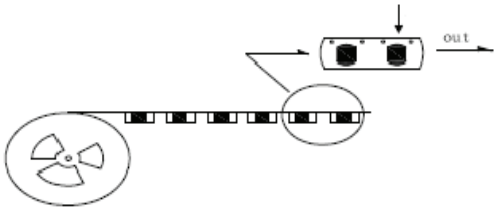
3.0 x 1.5 x 1.2 mm

TAPE & REEL:

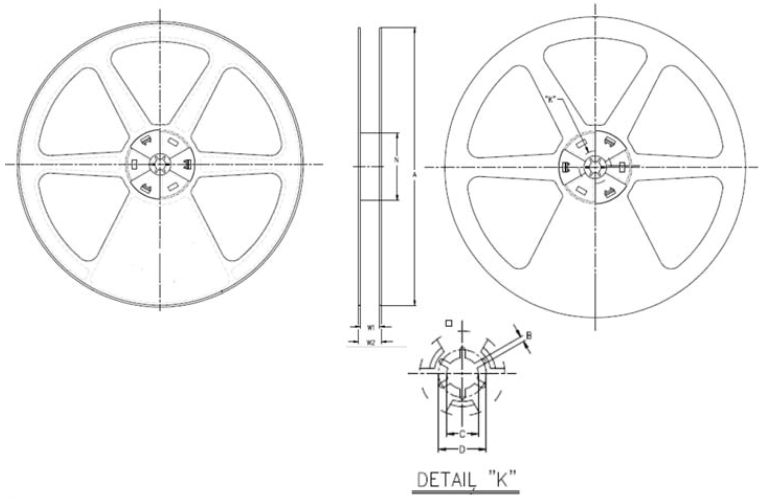
Packaging: 5,000 Units Per Reel



TAPE DIRECTION



A0	1.95±0.10	E	1.75±0.10
B0	3.40±0.10	F	5.50±0.10
K0	1.40±0.10	t	0.3±0.05
D0	1.55±0.50	w	12.00±0.30



Size	24mm Reel [mm]
A	330 +0.2 /-2.0
B	2.0 +0.5 / -0.2
C	13.0 +0.5 / -0.0
D	20.2 Min
N	80 +3.0 / -0.0
W1	12.4 +3.0 / -0.0
W2	16.4 +2.0 / -2.0

(Dimensions: mm)

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