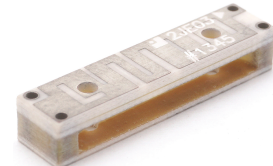


Multiband Chip Antenna

ACAJ-109-T



RoHS / RoHS II Compliant



24.0 x 5.5 x 4.4 mm

Moisture Sensitivity Level (MSL) – MSL = 1

FEATURES:

- Passive Penta-Band antenna (824MHz ~ 2170MHz)
- Covering GSM850, GSM900, DCS, PCS, & UMTS
- SMA mount, Reflowable to 260 degrees C max.
- Dimensions (24.0mm x 5.5mm x 4.4mm)
- Peak Gain variable across bands from 1.3 ~ 6.4dBi
- VSWR 3.0:1 Max (measured on matched EV board)
- Impedance 50 Ohms
- Linear Polarization / Omni-directional azimuth pattern
- RoHS/RoHS II compliant
- 2J Technology

APPLICATIONS:

- GSM850/900MHz
- DCS
- PCS
- UMTS
- Embedded applications

STANDARD SPECIFICATIONS

Description

The ACAJ-109-T product is a multi-band antenna that can be tuned to different bands by modifying its matching circuit. The antenna is constructed from a dielectric ceramic material with Ag patterns to form the antenna performance.

Electrical Characteristics for GSM850

ITEM		SPECIFICATION			
Frequency Range		824 ~ 894MHz			
VSWR		3.5: 1 Max			
Polarization		Linear			
Azimuth Beam Pattern		Omni-directional			
Impedance		50Ω			
Operating Temperature		-35°C to + 85°C			
Frequency [MHz]		824	849	869	894
Gain [dBi]	Peak	-0.3	-0.2	0.4	1.3
	Average	-3.7	-3.6	-3.3	-2.5
Efficiency [%]		42.4	43.8	47.1	56.1

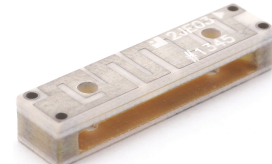
Electrical Characteristics for GSM900

ITEM		SPECIFICATION			
Frequency Range		880 ~ 960MHz			
VSWR		3.5: 1 Max			
Polarization		Linear			
Azimuth Beam Pattern		Omni-directional			
Impedance		50Ω			
Operating Temperature		-35°C to + 85°C			
Frequency [MHz]		880	915	925	960
Gain [dBi]	Peak	1.5	2.2	2.4	1.8
	Average	-2.4	-1.9	-1.8	-2.3
Efficiency [%]		57.3	64.6	65.8	58.2

Multiband Chip Antenna

ACAJ-109-T

 RoHS / RoHS II Compliant 



24.0 x 5.5 x 4.4 mm

STANDARD SPECIFICATIONS

Electrical Characteristics for DCS1800

ITEM		SPECIFICATION			
Frequency Range		1710 ~ 1880MHz			
VSWR		3.0 : 1 Max			
Polarization		Linear			
Azimuth Beam Pattern		Omni-directional			
Impedance		50Ω			
Operating Temperature		-35°C to + 85°C			
Frequency [MHz]		1710	1785	1805	1880
Gain [dBi]	Peak	6.4	5.8	6.1	5.4
	Average	-0.4	-0.9	-0.6	-1.1
Efficiency [%]		90.9	80.7	86.2	76.8

Electrical Characteristics for PCS1900

ITEM		SPECIFICATION			
Frequency Range		1850 ~ 1990MHz			
VSWR		3.0 : 1 Max			
Polarization		Linear			
Azimuth Beam Pattern		Omni-directional			
Impedance		50Ω			
Operating Temperature		-35°C to + 85°C			
Frequency [MHz]		1850	1910	1930	1990
Gain [dBi]	Peak	5.6	5.9	5.8	5.5
	Average	-0.8	-0.5	-0.5	-0.6
Efficiency [%]		84.0	89.8	88.6	86.7

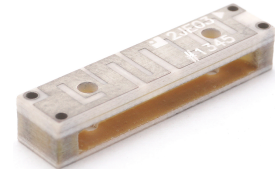
Electrical Characteristics for UMTS2100

ITEM		SPECIFICATION			
Frequency Range		920~2170MHz			
VSWR		3.0 : 1 Max			
Polarization		Linear			
Azimuth Beam Pattern		Omni-directional			
Impedance		50Ω			
Operating Temperature		-35°C to + 85°C			
Frequency [MHz]		1920	1980	2110	2170
Gain [dBi]	Peak	4.8	4.5	4.6	4.5
	Average	-0.7	-0.9	-0.5	-0.2
Efficiency [%]		84.9	82.1	89.5	95.4

Multiband Chip Antenna

ACAJ-109-T

Pb | RoHS / RoHS II Compliant | 



24.0 x 5.5 x 4.4 mm

PART IDENTIFICATION:

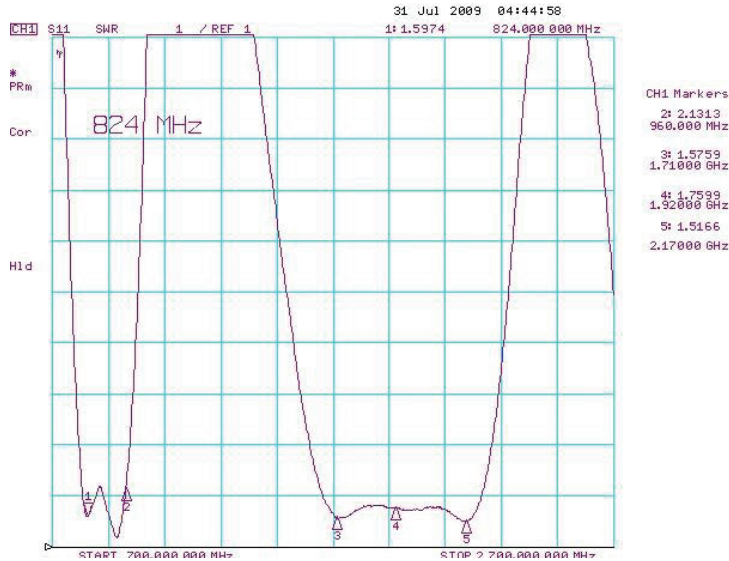
ACAJ-109-

Packaging

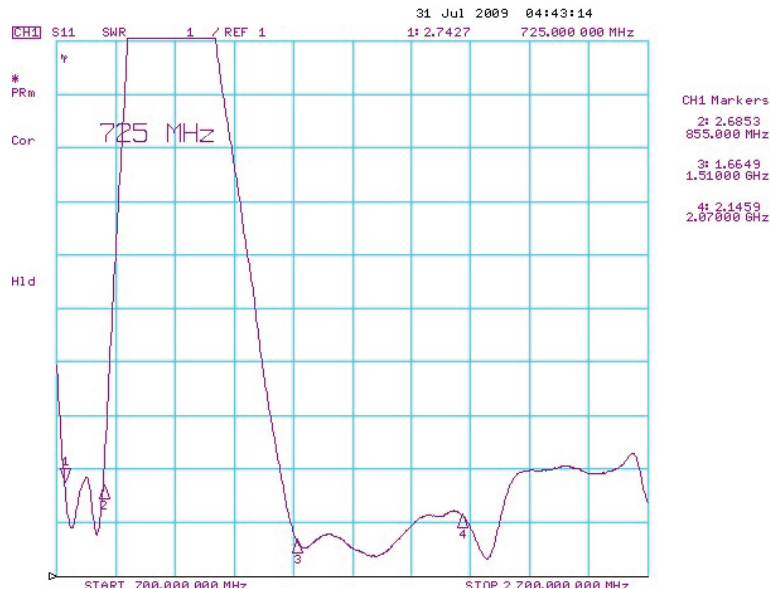
Blank: Bulk

T: Tape and Reel

S11 (VSWR)- Penta Band (GSM850&900, DCS, PCS, UMTS)



VSWR on EV Board

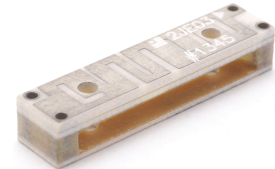


VSWR @ Manual Jig

Multiband Chip Antenna

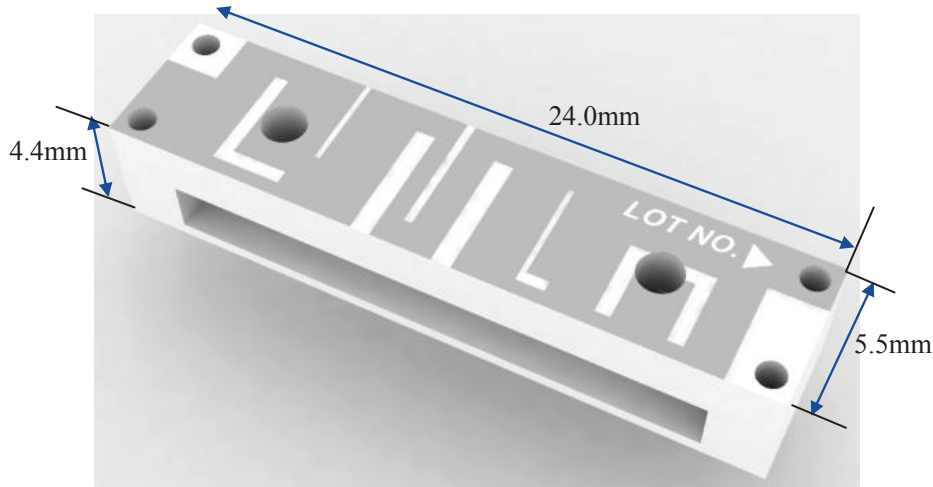
ACAJ-109-T

RoHS / RoHS II Compliant



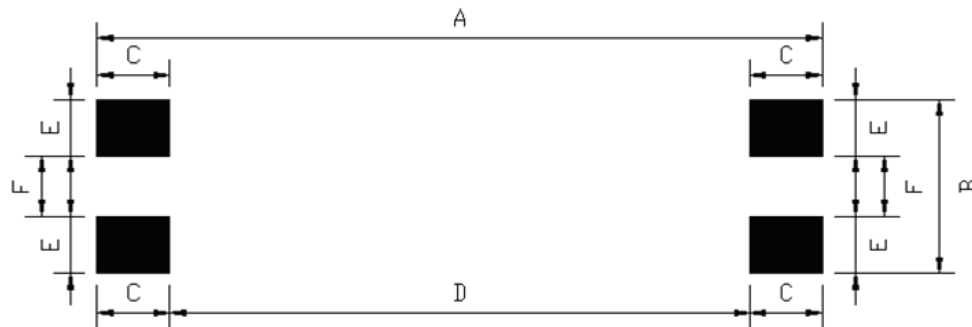
24.0 x 5.5 x 4.4 mm

OUTLINE DIMENSION:



Tolerance: ± 0.15

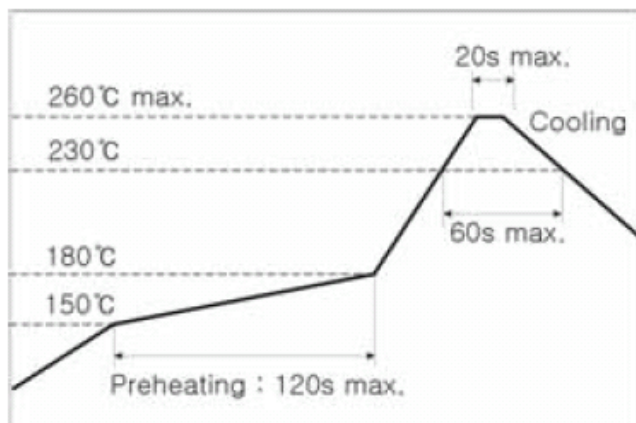
Recommended Land Pattern



A	B	C	D	E	F
25.0	5.5	2.3	20.4	1.8	1.9

Unit: mm.1

REFLOW PROFILE:

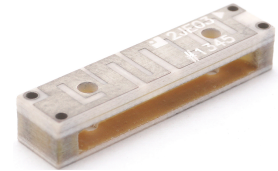


This product is designed for reflow soldering only. Do not use flow (wave) soldering. Use non-activated flux (Cl content 0.2% max.) Follow the recommended soldering conditions to avoid damage. Reflow-cycle is max. 3 times.

Multiband Chip Antenna

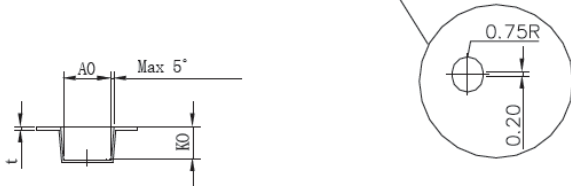
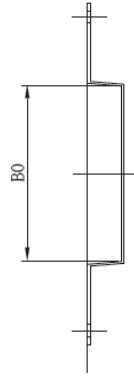
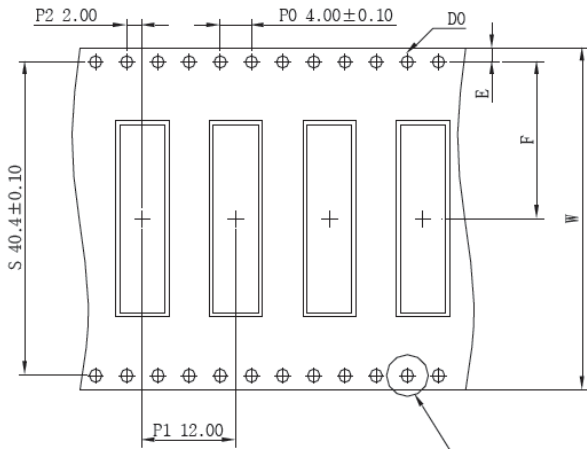
ACAJ-109-T

 RoHS / RoHS II Compliant 

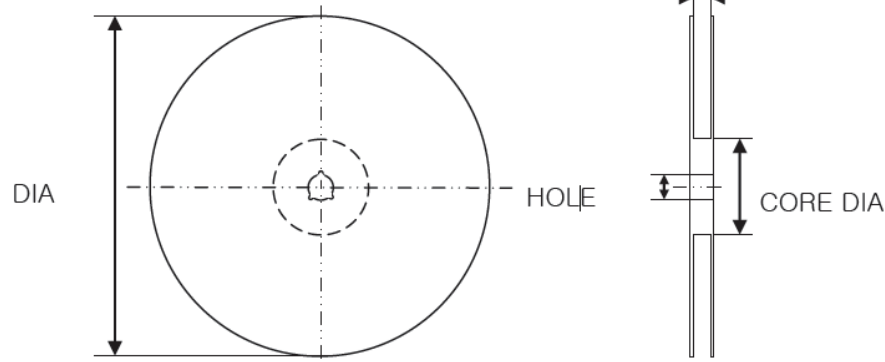


24.0 x 5.5 x 4.4 mm

TAPE & REEL:



A0	5.80±0.20	E	1.75±0.10
B0	24.30±0.20	F	20.20± 0.20
K0	4.60±0.20	W	44.00±0.30
D0	1.55±0.05	t	0.40±0.05



Item	Size (mm)
DIA	330.0 ± 2
WIDTH	45.5 ± 0.5
CORE DIA	100.0 ± 1
HOLE	13.0 ± 0.3

Package Quantity: 1000units/reel

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS
ISO9001:2008
CERTIFIED

 **ABRACON**[®] LLC
The Power of Linking Together

2 Faraday, Suite# B | Irvine | CA 92618 Revised: 11.19.15
Ph. 949.546.8000 | Fax. 949.546.8001

Visit www.abracon.com for Terms and Conditions of Sale



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.