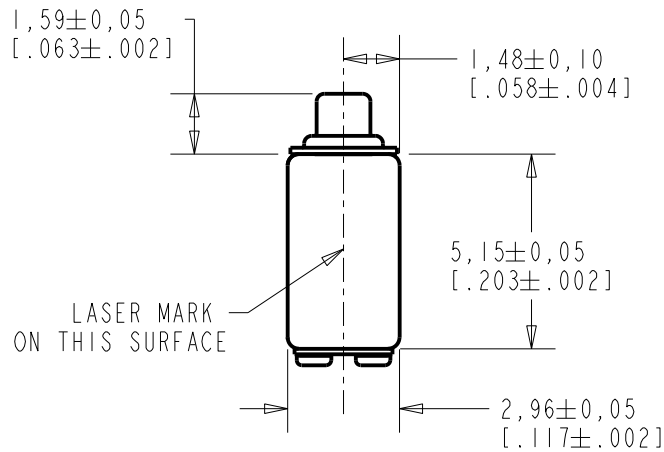
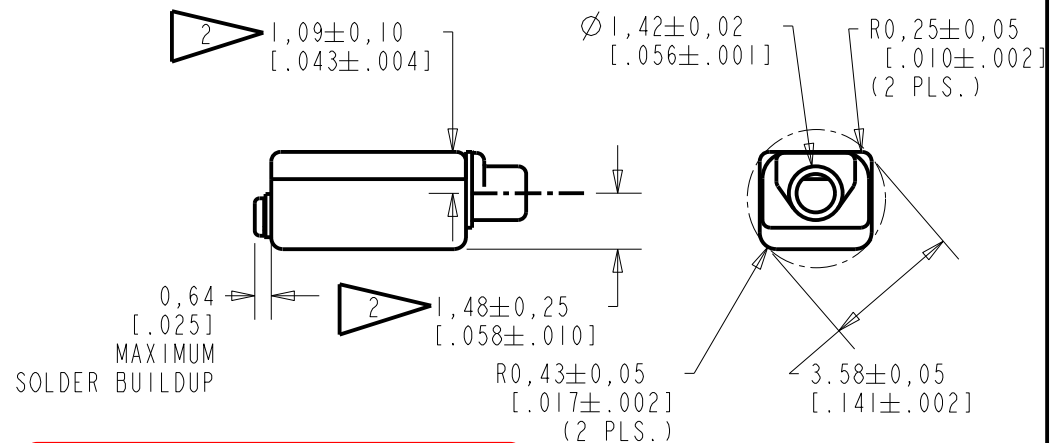
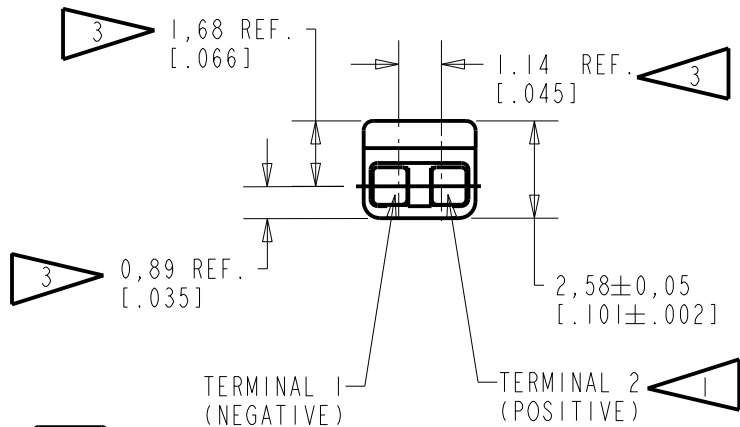


RAB-32057-000

SHT 1.1



- NOTE:
- 1 A POSITIVE GOING VOLTAGE AT TERMINAL 2, RELATIVE TO TERMINAL 1, CAUSES A DECREASE IN PRESSURE AT THE SOUND OUTLET.
  - 2 LOCATED FROM TWO SURFACES FOR CUSTOMER CONVENIENCE. ONLY APPLICABLE FROM ONE SURFACE, NOT TO BE USED TOGETHER.
  - 3 DIMENSION TO APPROXIMATE CENTER OF TERMINAL PAD.



**RED CONTROLLED**

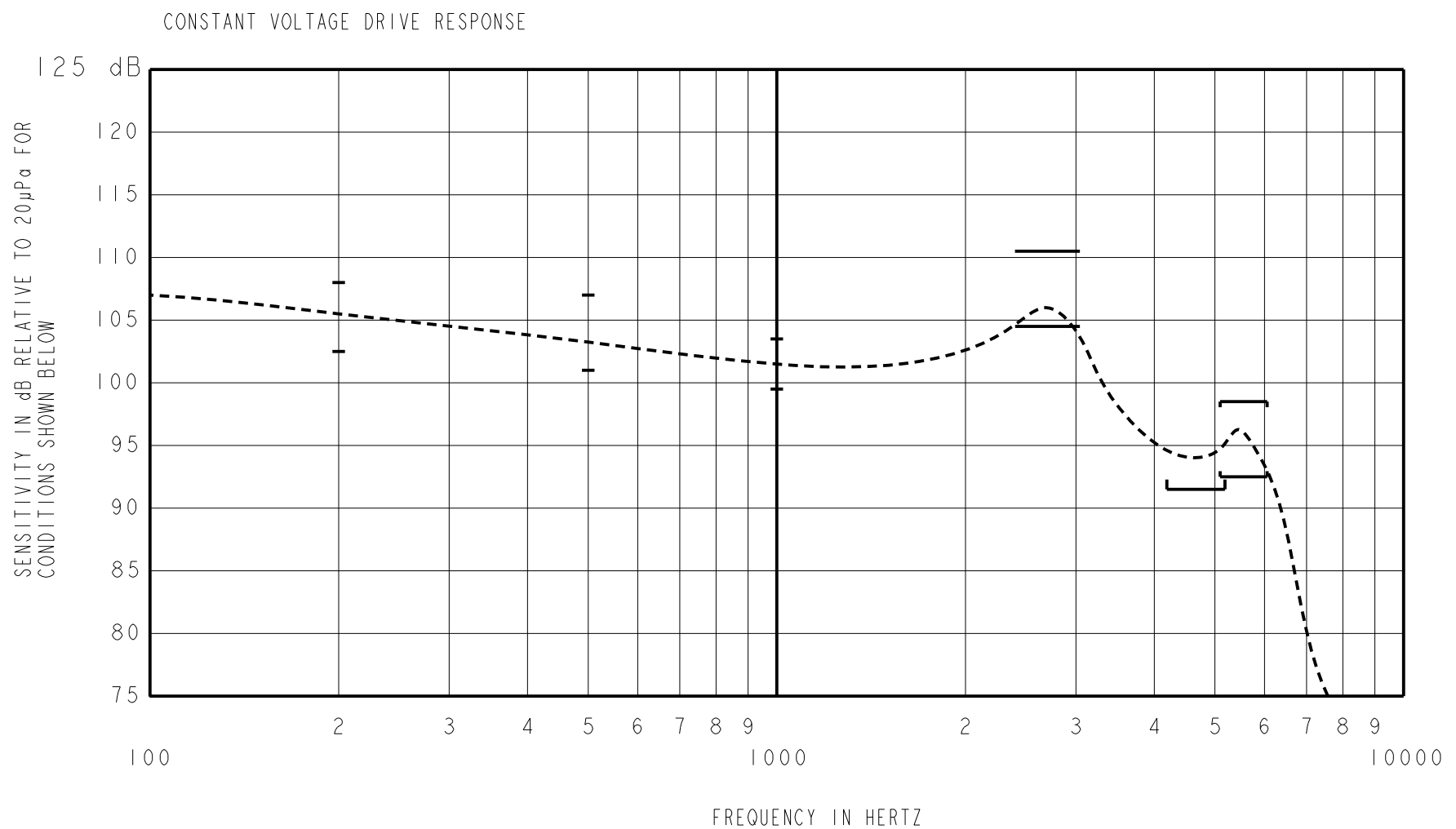
SCALE 2:1

NOMINAL WEIGHT .16 GRAMS DIMENSIONS IN MILLIMETERS [INCHES]

**KNOWLES ELECTRONICS**  
ITASCA, ILLINOIS U.S.A.

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	CI0116714	3-26-15	Active	B
A	CI0115003	8-8-13		

SCALE: 5:1	DR. BY: JL	DATE: 9-23-14
DO NOT SCALE DRAWING	CK. BY: GJP	DATE: 9-24-14
TITLE: RECEIVER	APP. BY: GJP	DATE: 9-24-14
OUTLINE DRAWING	RAB-32057-000 SHT 1.1	



**ACOUSTICAL**

SENSITIVITY  
DEVICE WILL PRODUCE THE SPL LISTED BELOW WITH THE TEST  
CONDITIONS DESCRIBED IN TABLE 3. NOMINAL SENSITIVITY  
AT 1 kHz IS dB RELATIVE TO 20µPa. ALL OTHER VALUES IN  
dB RELATIVE TO THE SENSITIVITY AT 1 kHz.

LIMIT TYPE	FREQUENCY (Hz)	MINIMUM	NOMINAL	MAXIMUM
REL	200	+1.0	+4.0	+7.0
REL	500	-0.5	+2.0	+5.5
REF	1000	-2.0	101.5	+2.0
PEAK 1	2450-3050	+3.0	+4.5	+9.0
VALLEY	4200-5200	-10.0	---	---
PEAK 2	5100-6100	-8.0	-5.0	-2.0

TABLE 1.

TOTAL HARMONIC DISTORTION  
DEVICE WILL NOT EXCEED TOTAL HARMONIC DISTORTION LEVELS  
LISTED BELOW.

FREQUENCY (Hz)	DRIVE (Vrms)	LIMIT (%)
1/3 PEAK1 (TYP. 917)	0.180	3
1/2 PEAK1 (TYP. 1375)	0.180	3
1/3 PEAK1 (TYP. 917)	0.507	8
1/2 PEAK1 (TYP. 1375)	0.507	8

TABLE 2.

**TEST CONDITIONS**

NOMINAL SOURCE VOLTAGE	0.180 Vrms
SOURCE IMPEDANCE	< 1 Ω
TUBING	10 mm (.394) LONG, 1 mm (.039) ID.
COUPLER CAVITY	2 CC SIMULATED ANSI S3.7 TYPE HA-3, (IEC 60318-5)

TABLE 3.

**ELECTRICAL**

DC RESISTANCE	65 Ω ±10%
IMPEDANCE @ 500 Hz	90 Ω ±15%
IMPEDANCE @ 1 kHz	140 Ω ±15%
INDUCTANCE @ 500 Hz	19.8 mH TYPICAL

TABLE 4.

ISOLATION: THE CASE WILL BE ELECTRICALLY ISOLATED  
FROM THE COIL CIRCUIT

**MECHANICAL**

PORT LOCATION: 12S

SOLDER TYPE: ROHS COMPLIANT  
SAC305

TEMPERATURE

OPERATING: SENSITIVITY WILL NOT VARY MORE THAN  
+1/-3 dB FROM 0°C TO 63°C

STORAGE: -40°C TO 63°C

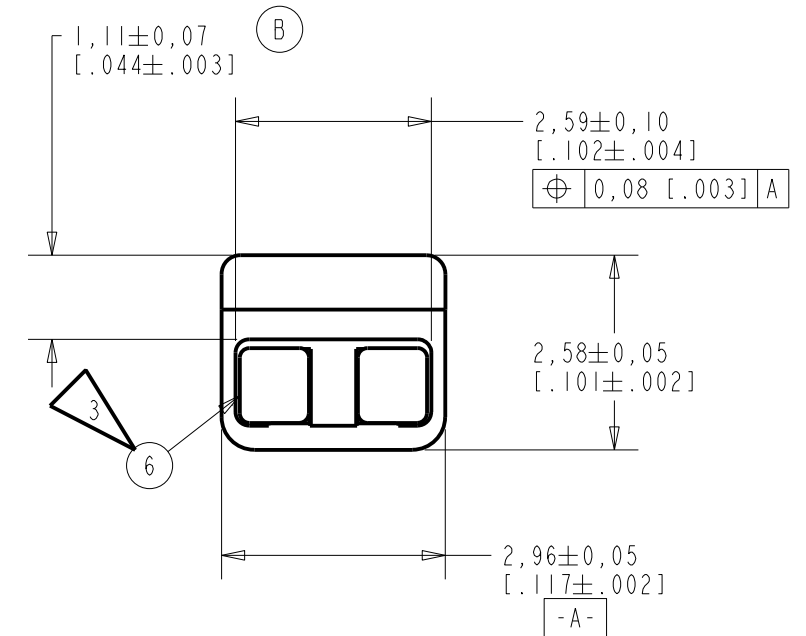
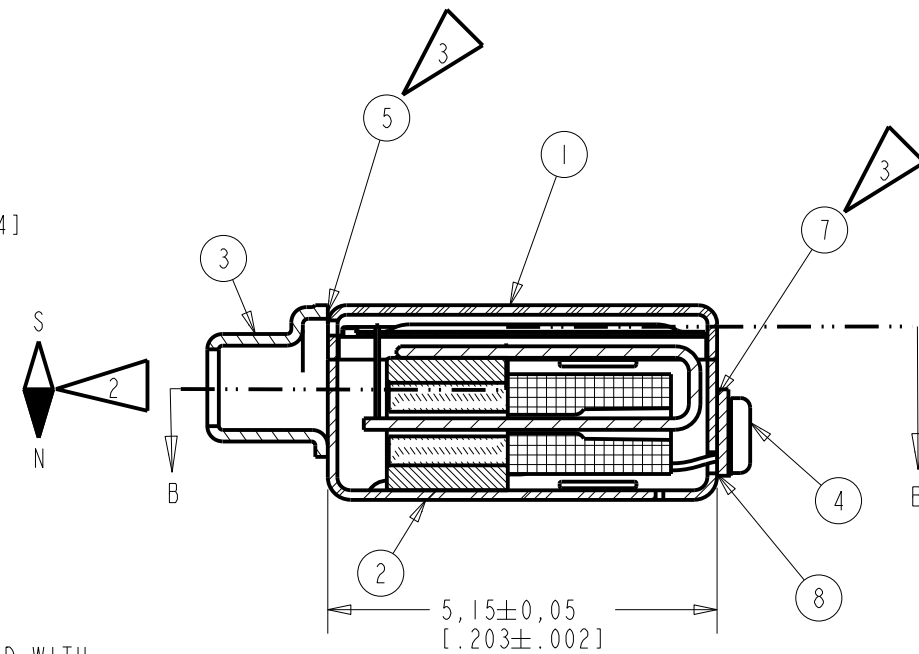
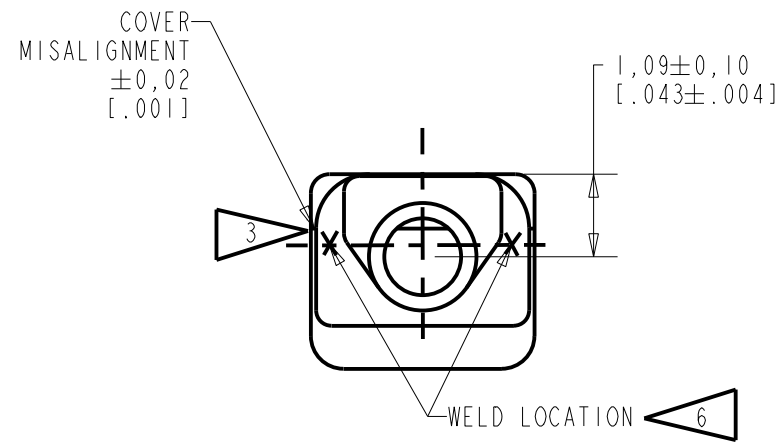
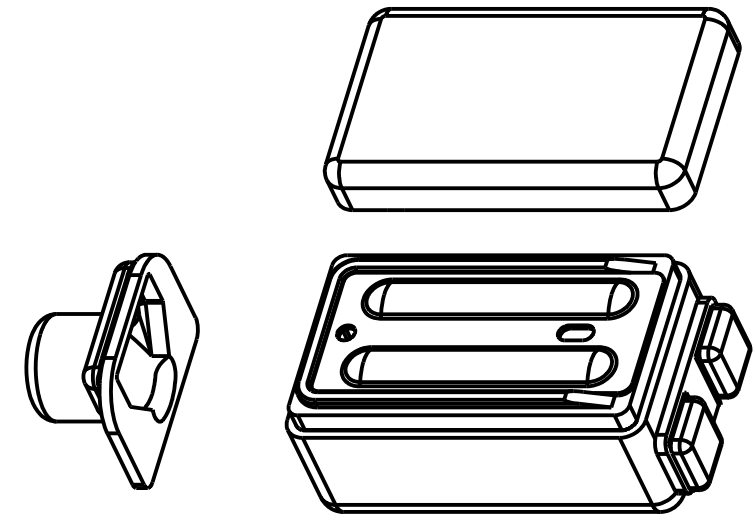
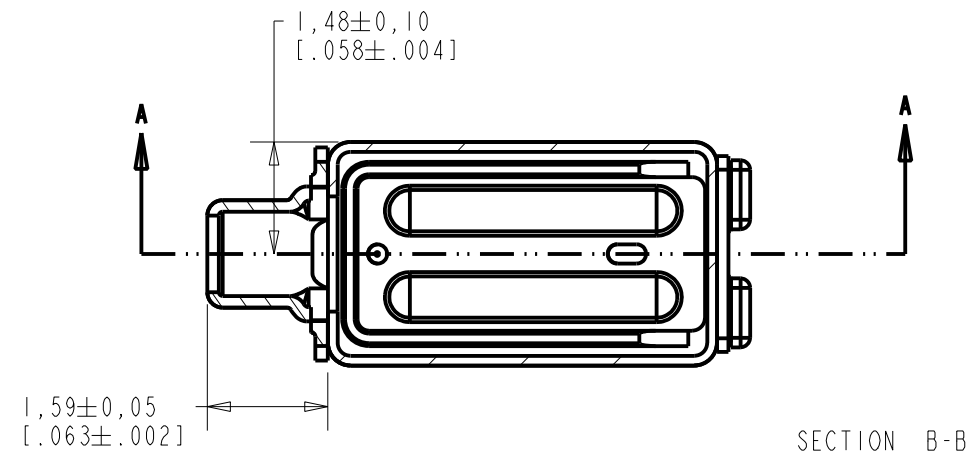
**RED CONTROLLED**


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Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
B	C10116714	3-26-15	Active	B
A	C10115003	8-8-13		
WHEN TEST LIMITS ARE USED TO ESTABLISH INCOMING INSPECTION ACCEPTANCE/REJECTION CRITERIA, CORRELATION OF TEST EQUIPMENT WITH KNOWLES IS ALSO REQUIRED FOR ELIMINATION OF EQUIPMENT AND TEST METHOD VARIATION			DR. BY	DATE
TITLE: <b>RECEIVER</b> PERFORMANCE SPECIFICATION			JL	9-23-14
			RAB-32057-000 SHT 2.1	
			CK. BY	DATE
			GJP	9-24-14
			APP. BY	DATE
			GJP	9-24-14

RAB-32057-000

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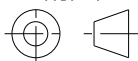


- NOTES:
- ITEMS NUMBERS (SHOWN THUS ) ON DRAWING CORRESPOND WITH ITEM NUMBERS ON BILL OF MATERIAL.
  - ORIENTATION OF COMPASS NEEDLE IN THE MAGNETIZING FIELD.
  - AIRTIGHT SEAL ALL AROUND.
  - UNITS SHALL BE FREE OF VISUAL DEFECTS SUCH AS SCRATCHES, ABRASION, SLUG MARKS, OIL, DIRT, OTHER CONTAMINATIONS, ETC., NOTICABLE WITH THE UNAIDED EYE.
  - NO CEMENT ON SOLDER PADS.
  - MIN. TUBE WELD STRENGTH OF 4.9N WITH FORCE APPLIED IN DIRECTION SHOWN.
  - NO THRU HOLES OR WELD FLASH AT COVER WELD.

**RED CONTROLLED**

SECTION A-A

DIMENSIONS IN MILLIMETERS [INCHES]

MATERIAL		SEE BILL OF MATERIAL		FINISH	- - -	SCALE:	10:1	DO NOT SCALE DRAWING	
REF.	XD-xxxx	A	c.o. C10116251	<p>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES</p> <p>THIRD ANGLE PROJECTION</p> 		<p>KNOWLES ELECTRONICS</p> <p>ITASCA, ILLINOIS U.S.A.</p>		DR. BY	DATE
		B	c.o. C10116714					JL	9-23-14
		UPDATE A DIMENSION. 4-21-15						GJP	9-24-14
				TITLE		RECEIVER ASSEMBLY		RAB-32057-000	
						SHEET		3.1	

RELEASE LEVEL	REVISION
Active	B

DR. BY	DATE
JL	9-23-14
CH. BY	DATE
GJP	9-24-14
APP. BY	DATE
GJP	9-24-14

<b>RAB-32057-000</b>	<b>KNOWLES ELECTRONICS</b> <b>ITASCA, ILLINOIS U.S.A.</b>	<b>RAB-32057-000</b>
Sheet <b>4.1</b>		Sheet <b>4.1</b>
Dr. By Date JL 9-23-14	<b>RECEIVER ASSEMBLY</b>	<b>B</b>
Ch. GJP 9-24-14		
App. GJP 9-24-14		
Subject:		Revision:
		<b>Active</b>

COL. 1	2	3	4	Item No.	Line No.
Part or Dwg. no.	Tot. Req.	Nomenclature:	Applicable Specs or Remarks		
RAB-1006	1	DIAPHRAGM & COVER ASSEMBLY		1	1
RAB-1030-004	1	MOTOR & CUP ASSEMBLY		2	2
FC-006	1	TUBE		3	3
285-007-001	A/R	SOLDER		4	4
13-825-3145	A/R	CEMENT		5	5
13-825-3153	A/R	CEMENT		6	6
13-825-3160	A/R	CEMENT		7	7
113-113	1	TAB		8	8

RED CONTROLLED

REVISION	A	C10116251	RAB-1030-004 WAS RAB-1004-004; 113-113 WAS 113-083. JL 4-21-15
	B	C10116714	

**RAB-32057-000**  
Sheet **4.1**

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REV: D RET: BDC/PRT/IND/FRM

PRODUCTION TEST INFORMATION

SOFTWARE REVISION PXI FCAAT	SOFTWARE 2.60 MIN.
HARDWARE REVISION PXI FCAAT	KE 1065E.006 MIN.
FCAAT COUPLER	T8049
FCAAT TEST BOARD	T10736

PHASE

FREQUENCY (Hz)	AC DRIVE (Vrms)	DEGREE LIMIT	
		MIN.	MAX.
500	0.180	0	90

BUZZ

FREQUENCY (Hz)	AC DRIVE (Vrms)	DC BIAS (DC mA)	FREQUENCY RANGE (Hz)	HIGH LIMIT (dB SPL)
200	0.507	0	3550-6750	63

**RED CONTROLLED**

Revision	C.O. #	Implementation Date	RELEASE LEVEL	REVISION
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A	C10115003	8-8-13		

**KNOWLES ELECTRONICS**  
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TITLE: **RECEIVER**  
PERFORMANCE SPECIFICATION

**RAB-32057-000**  
**SHT 5.1**

DR. BY	DATE
JL	9-23-14
CK. BY	DATE
GJP	9-24-14
APP. BY	DATE
GJP	9-24-14

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

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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## JONHON

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