

Customer :

ALPS ELECTRIC EUROPA GMBH

No. A040017 (1 / 10)

Date: Nov. 05. 2004

Attention :

Your ref. No.:

Your Part No.: BSTE9-101B

# SPECIFICATIONS

ALPS

MODEL : BSTE9-101B

Spec. No. :

Sample No. :

RECEIPT STATUS

RECEIVED

By. Date

Signature

Name

Title

# ALPS<sup>®</sup>

**ALPS ELECTRIC CO., LTD.**

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DSG'D

*Keischine, Sate*

APP'D

*for Adachi*

Sales

Title : The Specifications for Universal Quatro LNBF.

Abstract : The specification details the requirements for the LNBF (Low Noise Block converter with Feed horn) intended for outdoor operation in the 10.7-12.75 GHz Linear polarization signals (Horizontal/Vertical).

(A1) This product is completely lead-free. ( including actual components on PWB )

Customer Company Name :  
 Model No. : BST E9-101 B (A2)  
 Signature :

ALPS Model No. : BST E9-101 B (A3)  
 Signature :

					DSGD. 28.Nov. '02 Shuji Saito			(A4) -101B
					CHKD.	TITLE BST E9	PRODUCT SPECIFICATION	
					APPD. 28.Nov. '02 Takashi Maruyama	DOCUMENT NO. ( 1 / 6 )		
A4	A040017	A.A	K.S	Y.A	<b>ALPS ELECTRIC CO., LTD.</b>			
SYMB.	DATE OR NO	APPD.	CHKD.	DSGD.				

No.	I T E M	SPECIFICATION
1.	General	All specifications shall apply at +20°C Ambient temperature unless otherwise specified.

					DSGD.				(A)
					CHKD.	TITLE	-101B		
					APPD.	BSTE9	PRODUCT SPECIFICATION		
						DOCUMENT NO.	(2/6)		
A1	A040017					<b>ALPS ELECTRIC CO., LTD.</b>			
SYMB.	DATE OR NO	APPD.	CHKD.	DSGD.					

No.	I T E M		SPECIFICATION
2.	Electrical Specifications		
2-1.	Input Frequency Range	Low Band High Band	10.70~11.70 GHz 11.70~12.75 GHz
2-2.	Output Frequency Range	Low Band High Band	950~1950 MHz 1100~2150 MHz
2-3.	Local Oscillator Frequency		9.75 GHz $\pm$ 1 MHz 10.6 GHz $\pm$ 1 MHz
2-4.	Conversion Gain		48 dB Min (60 dB Max)
2-5.	Gain Flatness	Over Band at 26 MHz	8 dB Max 1 dB Max
2-6.	Gain difference between output ports		4 dB Typ.
2-7.	Noise Figure	Low Band High Band	1.4 dB Max (0.9 dB Typ.) 1.3 dB Max (0.8 dB Typ.)
2-8.	Output Return Loss		8 dB Min
2-9.	Local Oscillator Frequency Stability (-25 to +60 °C, 20 °C Ref.)		$\pm$ 3 MHz Max
2-10.	Phase Noise	( 1 kHz off set ) ( 10 kHz off set ) ( 100 kHz off set )	-55 dBc /Hz Max -80 dBc /Hz Max -100 dBc /Hz Max

					DSGD.				(A)	-101B
					CHKD.	TITLE	BSTE9		PRODUCT SPECIFICATION	
					APPD.	DOCUMENT NO.	(3/6)			
A1	A040017					<b>ALPS ELECTRIC CO., LTD.</b>				
SYMB.	DATE OR NO	APPD.	CHKD.	DSGD.						

No.	I T E M	SPECIFICATION
2-11.	Cross-Polar Rejection (Cross-Band Rejection)	25dB typ.
2-12.	Image Rejection	40 dB Min (80dB typ.)
2-13.	3rd order Intercept Point	+12 dBm Min (+20dBm typ)
2-14.	Max Inband Spurious Level	-55 dBm Max (-65dBm typ)
2-15.	Local Oscillator Leakage 1. Fundamental 2. Harmonics	-60 dBm Max -50 dBm Max
2-16.	DC power	11.5~19.0 V
2-17.	Current Consumption	180 mA Max (150mA typ.)

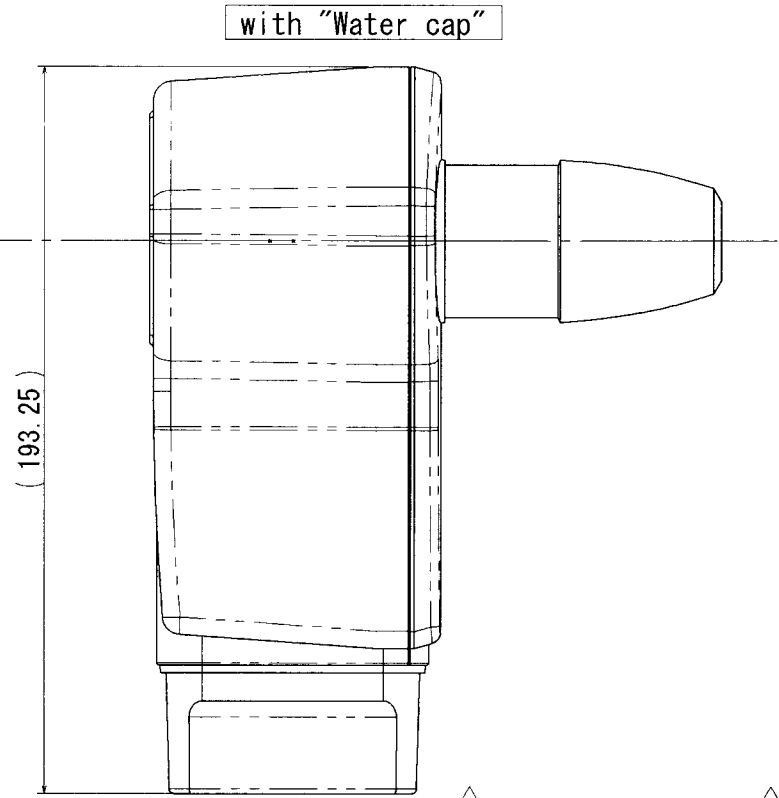
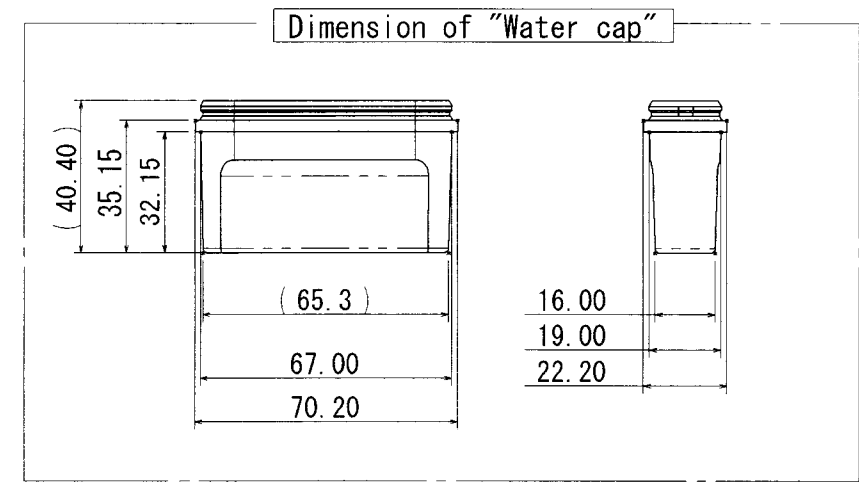
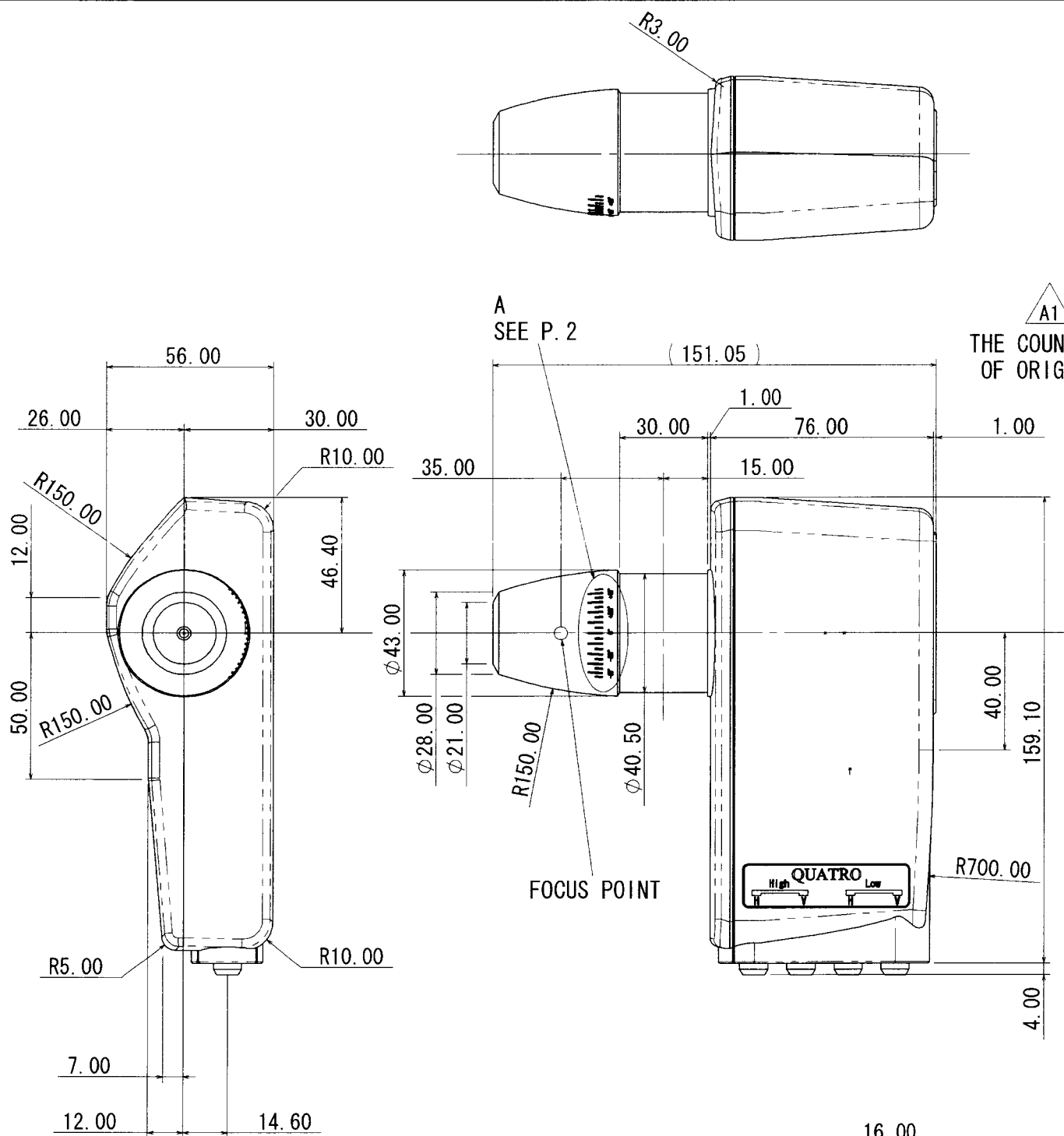
					DSGD.			(A)	
					CHKD.	TITLE	-101B		
					APPD.	BSTE9	PRODUCT SPECIFICATION		
						DOCUMENT NO.	(4/6)		
A1	A040017					<b>ALPS ELECTRIC CO., LTD.</b>			
SYMB.	DATE OR NO	APPD.	CHKD.	DSGD.					

No.	I T E M	SPECIFICATION
3.	Mechanical Specifications	
3-1.	Input Wave Guide Flange	Dwg
3-2.	Output Connector	Type F female
3-3.	Maximum Envelope Dimensions	Dwg
3-4.	Maximum Weight	350 g Max
3-5.	Cabinet Color	Gray (Pantone Cool Gray 1U)

					DSGD.				(A)
									-101B
					CHKD.	TITLE	PRODUCT SPECIFICATION		
						BSTE9			
					APPD.	DOCUMENT NO.	(5/6)		
A1	A040017								
SYMB.	DATE OR NO	APPD.	CHKD.	DSGD.	<b>ALPS ELECTRIC CO., LTD.</b>				

No.	I T E M	S P E C I F I C A T I O N
4.	Environmental Specifications	The LNB shall be of continuous and reliable operation under the following environmental conditions
4-1.	Temperature	-25 to +60 °C
4-2.	Humidity	35 to 95 % RH

					DSGD.			(A)	
								-101B	
					CHKD.	TITLE	PRODUCT SPECIFICATION		
						BSTE9			
					APPD.	DOCUMENT NO.	(6/6)		
A1	A040017								
SYMB.	DATE OR NO	APPD.	CHKD.	DSGD.	<b>ALPS ELECTRIC CO., LTD.</b>				



A1  
THE COUNTRY OF ORIGIN (REFER TO NOTE 3)

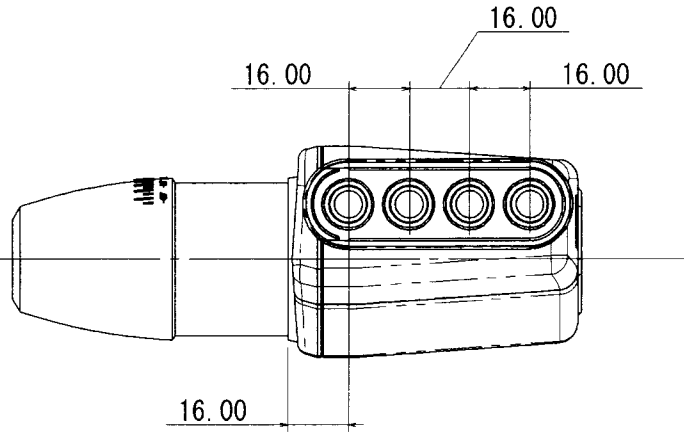
LABEL

Lot. No.

F-conn.

Water cap

NOTE 1. TOLERANCES ARE  $\pm 0.7\text{mm}$  UNLESS OTHERWISE SPECIFIED.  
 A2 2. COLOR OF PLASTIC MOLDING CASE IS PANTONE COOL GRAY 1U.  
 A3 3. THE COUNTRY OF ORIGIN IS INDICATED BY MOLDING.  
 MADE IN JAPAN  
 OR  
 MADE IN CZECH REPUBLIC

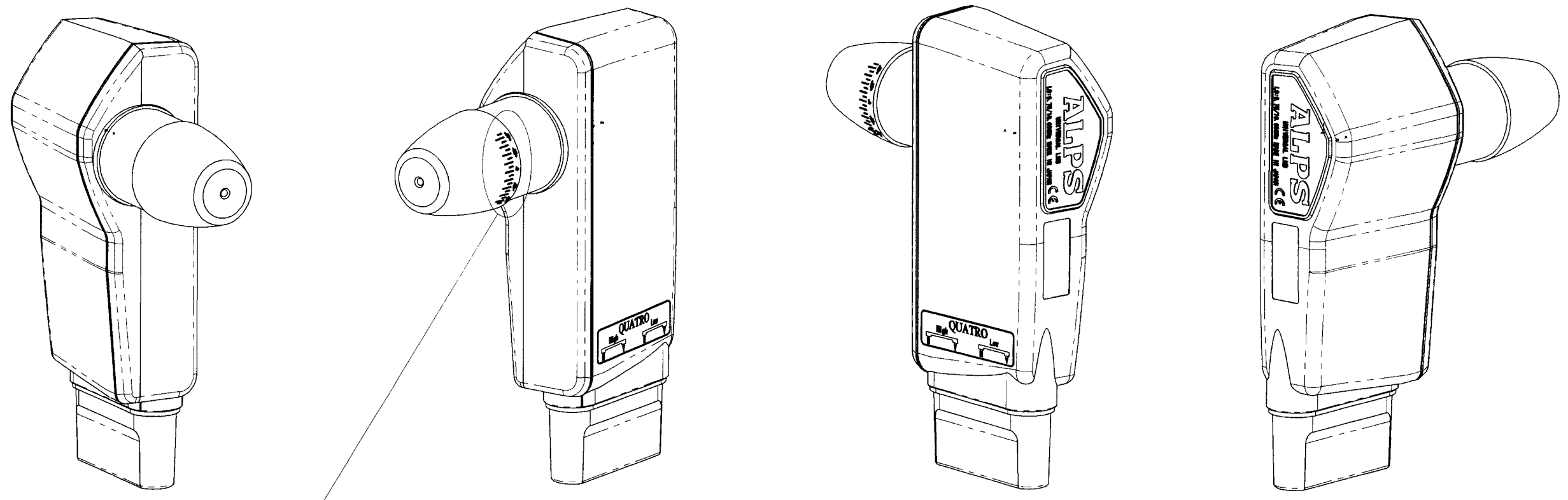


B	B
BSTE9-101A	BSTE9-101A
CUST. MODEL NO.	ALPS MODEL NO.

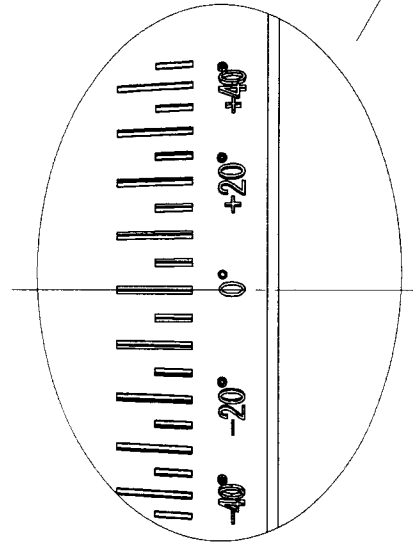
PART NO.	NAME	MATERIAL	SPEC.	FINISH
<b>ALPS ELECTRIC CO., LTD.</b>				
DSGD. Nov. 29, '02 S. Matsuzaki				SCALE 1:2
CHKD.				TITLE BSTE9 ASSEMBLY DRAWING
C-4, 6	B3	Oct. 25, '04	SM	SM
B-3	A3	A030006	S. M	S. M
D-1				
ZONE	SYMB.	DATE OR NO.	APPD.	CHKD. DSGD.
			Nov. 29, '02 S. Matsuzaki	
				UNIT mm
				(1/2)

KEY NO.



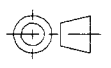


A (2 : 1)



skew angle

▲  
B  
BSTE9-101A  
ALPS MODEL NO.

PART NO.	NAME	MATERIAL	SPEC.	FINISH
<b>ALPS ELECTRIC CO., LTD.</b>				
		DSGD.	SCALE 1:2	TITLE BSTE9 ASSEMBLY DRAWING
		CHKD.		
C-6	A1	Oct. 25, '04		APPD.
ZONE	SYMB.	DATE OR NO.	APPD. CHKD. DSGD.	(2/2)

KEY NO.

## RECORD OF REVISIONS

BSTE9-101B

DATE	PRESENT CONTENTS	NEW CONTENTS / REASON		DSGN BY
Nov. 28 '02 (A020021)	NEW			S.Saito
Mar.14.'03 (A030006)		Addition to Manufacturer(CZECH)		T.MARUYAMA
Nov.05.'04 (A040017)	ALPS MODEL NO. BSTE9-101A	BSTE9-101B / Change to lead-free		K.SATO
	PRODUCT SPECIFICATION None	This product is completely lead-free / Change to lead-free		
		CZECH	ALPS ELECTRIC CZECH,S.R.O.	
		JAPAN	ALPS ELECTRIC CO.,LTD	
		MANUFACTURER		