



K&L Microwave, Inc.

Delivery Note

ORIGINAL

Date Printed: 6/8/12
 Customer Number: 280760
 Our Reference: Kristen Pittas

Delivery Note: 134200
 PO Number: 017238-7969

Order Number: E53153
 Your Reference: Daryl Spencer

Delivery Address:
 UNIVERSTIY OF CALIFORNIA
 ECE Department
 Santa Barbara CA 93106
 UNITED STATES

Customer Address:
 UNIVERSTIY OF CALIFORNIA
 ACCOUNTING OFFICE
 SANTA BARBARA CA 93106
 UNITED STATES

Ship Via:
 UPS (Prepay & Add)
 Forwarder Info:

Terms of Delivery:
 FCA SALISBURY, MD
 Actual Ship Date:
 6/8/12

Label Note:

Terms of Payment:
 N30 Days

Pos	Part No	Ordered Unit	Remaining Total Delivered	Delivered	Final delivery Lot Batch No
2	5FV05-00013	1.00	0.00	1.00	X
2	5FV05-20500/T2000-K/K	EA	1.00		1223-13

Reference ID: QR44018

Customer Order Line 2

Serial No: 1

SHIPPING INSTRUCTIONS:
 Partial Accepted
 Early Shipment Accepted
 Test Data Required

CONTACT: Daryl Spencer
 PHONE: 805-893-4338
 EMAIL: darylspencer@umail.ucsb.edu

Ref Quote QR44018

265 ATS

CERTIFICATE OF COMPLIANCE:

This is to certify that the material furnished pursuant to the purchase order, has been manufactured, tested and/or inspected in accordance with the requirements of the applicable specifications. Inspection and testing records are available to our customers upon request.

JoAnn Littlefield**Sr. Quality Engineer**Salisbury, MD Facility
 Jay Kitzrow**Sr. Quality Engineer**Salisbury, MD Facility
 Laurie Strang **Quality Engineer** Salisbury, MD Facility
 K&L Microwave Inc / Voltronics Corporation 2250 Northwood Drive,
 Salisbury, Maryland 21801 USA



NOTE: Signature Stamp Required Here: _____

Marcial Lamarche ****Quality Manager****Santo Domingo, DR Facility
 K&L Microwave (DR) Zona Franca San Isidro Carretera San Isidro,
 Santo Domingo KM17 Dominican Republic

NOTE: Signature Stamp Required Here: _____

Visit Address: 2250 Northwood Drive Salisbury MD 21801
 Invoice Address: Details last page invoice
 Phone: 410-749-2424
 Fax:
 Bank Giro:
 Postal Giro:
 Tax Number:



MFR PART NO: 5FV05-00013
 PART DESCRIPTION: 5FV05-20500/T2000-K/K
 CUSTOMER PART NO:

CUSTOMER ORDER: E53153
 Q.C. INSPECTOR: *RAB*
 REPORT DATE: 6/7/2012

PAGE: 1
 PASSED AT 25C
 FINAL DATA

SPECIFICATION 1

DATE TESTED: 6/7/2012

TUNER: SSP

TESTER: SSP

Insertion Loss (dB)
 @20500 MHz, 1 Max 0.60

Relative Stopband (dbc)

@16000 MHz, 50 Min 71.74

@25000 MHz, 50 Min 72.80

Center Frequency (MHz)

@-3 dB 20505.806

Band Edges (MHz)

@-3 dB, 19500 MHz Max 19430.541

@-3 dB, 21500 MHz Min 21581.07

Bandwidth (MHz)

@-3 dB, 2000 MHz 2150.53

Return Loss Edges (MHz)

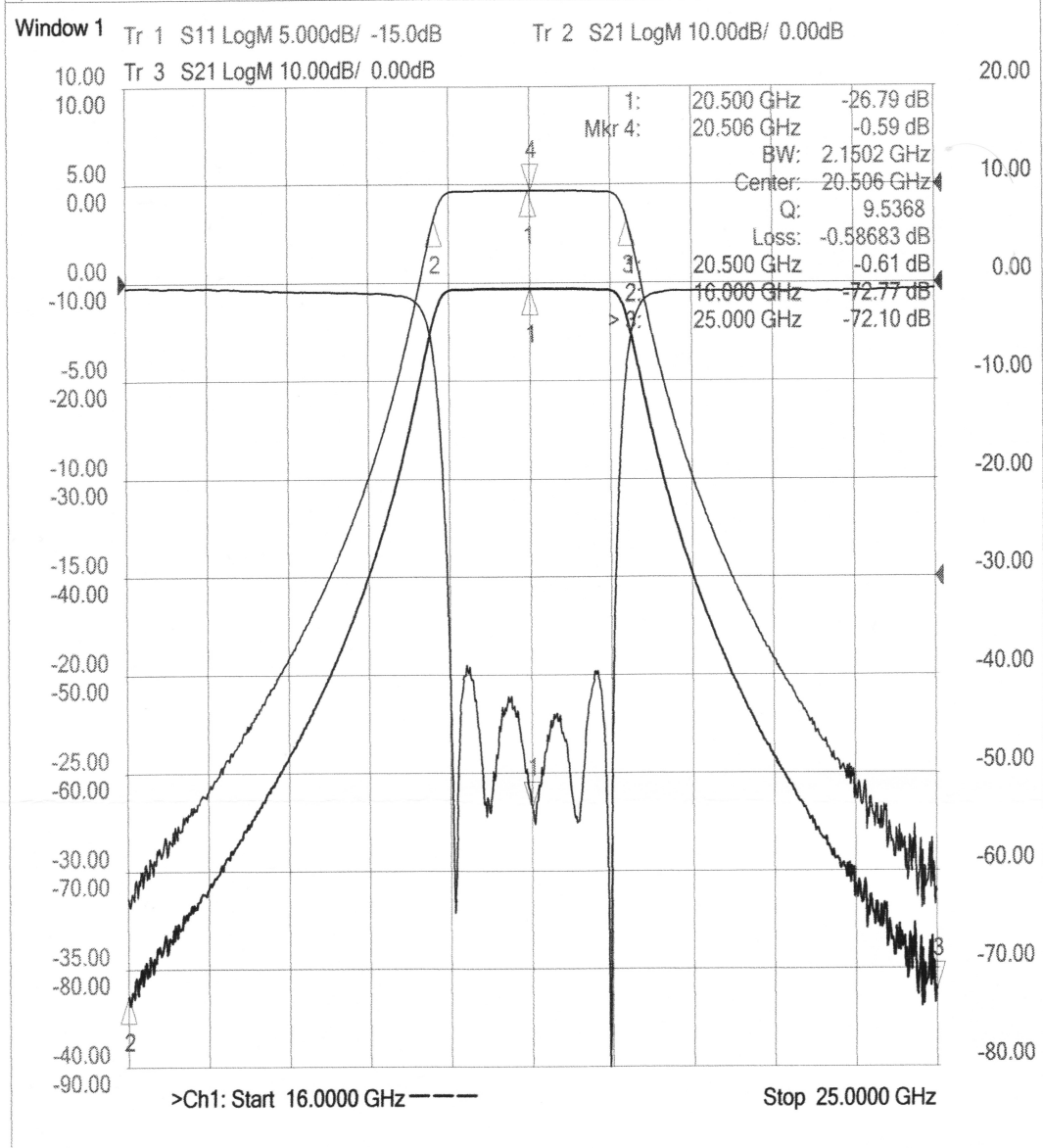
@-14 dB, Lower Edge 19562.202

@-14 dB, Higher Edge 21455.126

VISUAL AND MECHANICAL INSPECTION *✓*

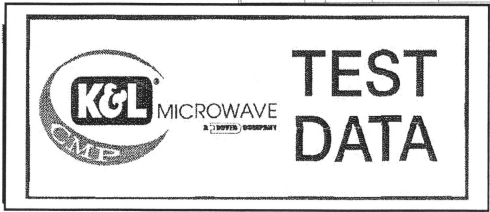
PASSED *RAB* FAILED *RAB*





Channel Settings								
Channel	Sweep Type	Points	Start (GHz)	Stop (GHz)	IF BW (kHz)	Sweep Time (s)	Pow 1 (dBm)	Pow 2 (dBm)
1	LinFreq	801	16.000000	25.000000	35.000000	0.024030	0.000000	0.000000

Trace Attributes							
Window	ID	Trace	Channel	Correction	Options	Marker	Response
1	1	S11	1	C 2-Port		1	20500 MHz -26.868 dB
						2	19430.976 MHz -3.5675 dB
	2	S21	1	C 2-Port		3	21581.373 MHz -3.5675 dB
						4	20506.174 MHz -0.59631 dB
3	S21	1	C 2-Port		1	20500 MHz -0.59603 dB	
					2	16000 MHz -72.723 dB	
					3	25000 MHz -70.534 dB	



K & L P/N 5FV05-00013
 CUSTOMER PART NO. _____
 SERIAL NO. 1
 PER ATP _____

K & L ORDER NO. ES3153
 TEST ENGINEER SSP
 Q.C. INSPECTOR 7/27
 DATE 6/7/12