

**FINAL TEST DATA**

T.W.T. TYPE NO. MTI 3044C  
 SERIAL NUMBER 363  
 SO/RPA 7160

OPERATING CONDITIONS		POWER SUPPLY REQUIREMENTS	
ELEMENT	VOLTAGE	CURRENT	VOLTAGE MIN.    VOLTAGE MAX.    CURRENT MAX.
Heater	-6.3 Vdc	1.90 A	-6.0 Vdc    -6.6 Vdc    2.2 A
Bias	-150 Vdc	2 mA	-150 Vdc    -200 Vdc    1 mA
Cathode	-11.4 kV	1.68 Apk	-10.5 kV    -11.4 kV    2.0 Apk
Grid	162 Vpk	20 mApk	100 Vpk    220 Vpk    20 mApk
Collector	8.21 kV	1.47/1.516 Apk	72% ±2%    1.8 Apk
Helix W/Wo Rf	Gnd	208.104 Apk	Gnd    Gnd    .6 Apk

\*Voltage is measured with respect to Ground.  
 \*Cathode current =  $i_b + i_w - i_c$ .  
 \*\*Voltage are measured with respect to Cathode.

RF PERFORMANCE		
FREQ.	SAT POWER OUTPUT	GAIN AT RATED POWER
Min.	60.8	40
Max.	N/A	N/A
GHz.	dBm	dB
8.0	61.0	54.8
9.0	62.1	60.5
10.0	62.6	62.6
11.0	62.9	63.1
12.0	63.5	63.4
12.4		

POWER SUPPLY CONNECTIONS			POWER SUPPLY CONNECTIONS	
LEAD	COLOR	CONNECTOR	Flying Leads	
Heater	Brown	AMP LGH-1	Heater	Brown
Cathode	Yellow	862128-4	Cathode	Yellow
Grid	Green	Or Equivalent	Grid	Green
Collector	Red	(Optional)	Collector	Red
Helix/Shell (Ground)	-		Helix/Shell (Ground)	-
			Thermal Interlock (Normally Closed)	

Maximum Duty 4%  
 Maximum Pulsewidth 200  $\mu$ sec  
 Grid Capacitance 29.3 pF 50 pF Max.

Input VSWR 1.791 2.5:1 Max.  
 Output VSWR 1.463 2.5:1 Max.  
 Thermostat N.C. (N.C.)  
 Harmonics -3.5 dBc -3 dBc @ Rated Power  
 Broadband Noise 28.7 dBm 30 dBm Max.

APPROVALS		DATE	DOC. ISSUE NO.
COG. ENG.	J. TENNANT	08/18/08	6
QUALITY ASSURANCE	W. KEATING	08/18/08	
DOC CONTROL	<i>Kenny Buchanan</i>	<b>08/18/08</b>	

DATE 9/3/08 TESTED BY Tong Cheng  
 ENGR./SUPR. J.M. QA 10 SEP 04 2008





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ZÜRICH-FLUGHAFEN 07.10.2008

MWST - Nr.: 245'409

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044 633 47 39

Tel. Nummer :044 ~~632 79 01~~ <sup>633 4739</sup>

unsere Referenz ==> TS.019399.000 <== I/Ref:

Zeichen/Nummern	Anz.	Verpackung	Warenbezeichnung	Kilos
DFW-0149 276 ADRESSE 057-4163 5742	1	Karton	Amplifier	70.8
- T O T A L -	1		VOL. .600 CBM	70.8

Absender : Applied Systems Engineering

US-Fort Worth 76126

Der Unterzeichnende bestätigt, die obenaufgeführte Sendung in äusserlich einwandfreiem Zustand erhalten zu haben.

... Anzahl EUR Pal. erhalten

... Anzahl EUR Pal. ausgetauscht

... Anzahl EUR Pal. nicht ausgetauscht

(Diese Paletten werden wir Ihnen belasten)

Datum : Zeit: Stempel und Unterschrift:



APPLIED SYSTEMS ENGINEERING, INC.

7510 BENBROOK PKWY FORT WORTH, TEXAS 76126  
TELEPHONE: (817) 249-4180 FAX: (817) 249-3413

### PACKING SLIP

<b>TO:</b> ETH ZURICH F236 WOLFGANG PAULI STRASSE 10 8093 ZUERICH, SWITZERLAND Attn: RENE TSCHCAGGELAR PH: +4144633 47 39	<b>DATE :</b> SEPTEMBER 19, 2008 <b>INVOICE NO. :</b> 508R-5 <b>CUSTOMER PURCHASE ORDER OR CONTRACT NO. :</b> 08080004 <b>SHIPMENT NO. :</b> 508R-5
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ITEM	QTY	DESCRIPTION
1	1EA	EVALUATION OF MODEL 117X, P/N 43103-2, S/N 257
2	1EA	NEW TWT FOR ITEM #1 , P/N MTI-3044C, S/N 363
3	1EA	INSTALLATION/ INTEGRATION OF NEW TWT IN ITEM #1
		SHIPMENT INCLUDES: COMMERCIAL INVOICES- 5EA PACKING SLIP-5EA TWT DATA SHEET- 1EA TEST DATA SHEET- 1EA OLD TWT , P/N 65914-51, S/N 0037



### COMMERCIAL INVOICE

<b>TO:</b> ETH ZURICH F236 WOLFGANG PAULI STRASSE 10 8093 ZUERICH, SWITZERLAND	<b>DATE:</b> SEPTEMBER 19, 2008 <b>INVOICE NO:</b> 508R-5 <b>SHIPMENT NO:</b> 508R-5 <b>PURCHASE ORDER OR CONTRACT NO:</b> 08080004
<b>Attn:</b> RENE TSCHAGGELAR PH: +4144633 47 39	<b>TERMS:</b> NET 30 DAYS

Please make checks payable to: Applied Systems Engineering, Inc.  
P.O. Box 122987  
Fort Worth, Texas 76121

ITEM	QTY	DESCRIPTION	UNIT PRICE	AMOUNT USD
1	1EA	EVALUATION OF MODEL 117X, P/N 43103-2, S/N 257	\$750.00	\$ 750.00
2	1EA	NEW TWT FOR ITEM #1, P/N MTI 3044C, S/N 363	\$21,000.00	\$21,000.00
3	1EA	INSTALLATION / INTEGRATION OF NEW TWT ( ITEM #2) INTO ITEM #1	\$ 2,000.00	\$ 2,000.00
		THIS SHIPMENT IS DECLARED AS US PRODUCED GOODS IMPORTED FOR REPAIR - RETURNING TO CUSTOMER AFTER COMPLETION OF ABOVE REPAIR		
		THE ABOVE TRUE AND CORRECT:		
		 L. E. MARKS, VICE PRESIDENT		
			<b>SUB TOTAL</b>	\$23,750.00
			<b>TOTAL</b>	\$23,750.00