

FINAL TEST DATA
FOR
HARRIS MEDIUM WAVE BROADCAST TRANSMITTER
MODEL GATES ONE

Sold to:
Customer Name; KCOG-AM

Ship to:
Call/Location; CENTERVILLE, IA

Customer Number; 1600850

Product Part Number; 994-9202-002

Impedances (Ohms); Rf out: 50 Audio in: 600

Frequency (Khz); 1400

Power Output (watts); High 1000 Low 100

Line; 220 Volts 1 Phase 60 Hertz

Order Number; F9R00991

Serial Number; MP01400000003

RELEASED FOR SHIPMENT

Test Tech

Eric Morantz

Date

3/29/99

Manufacturing

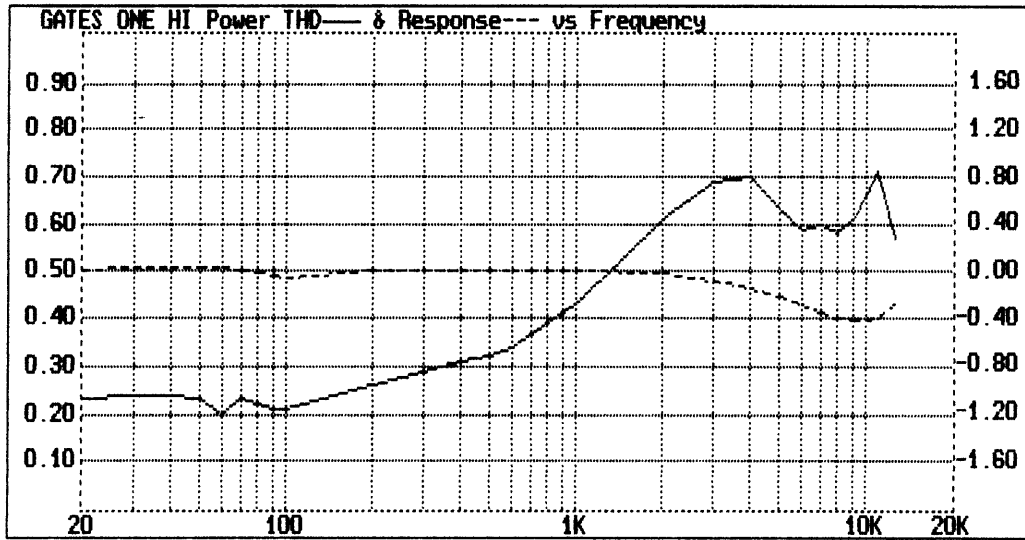
Mark [Signature]

Date

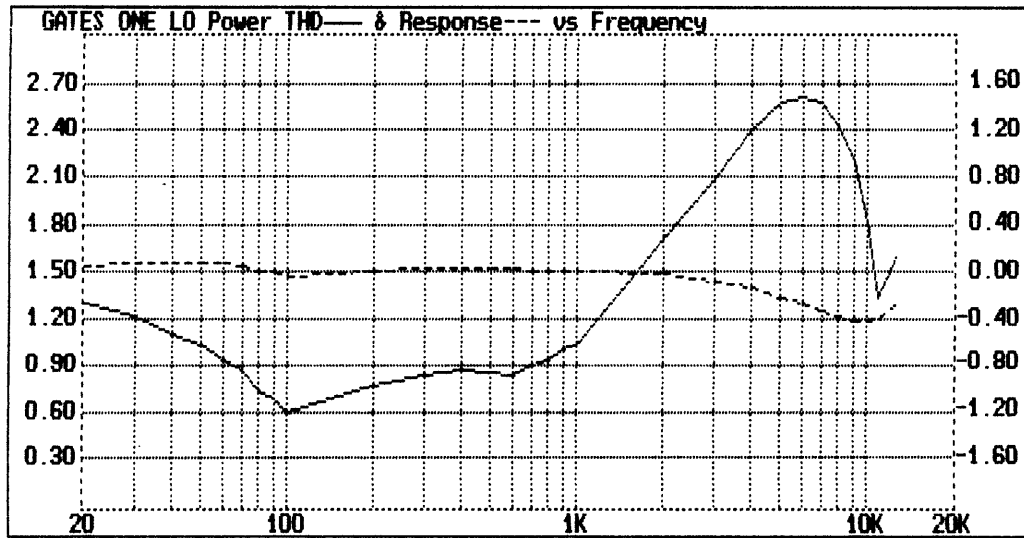
3-29-99

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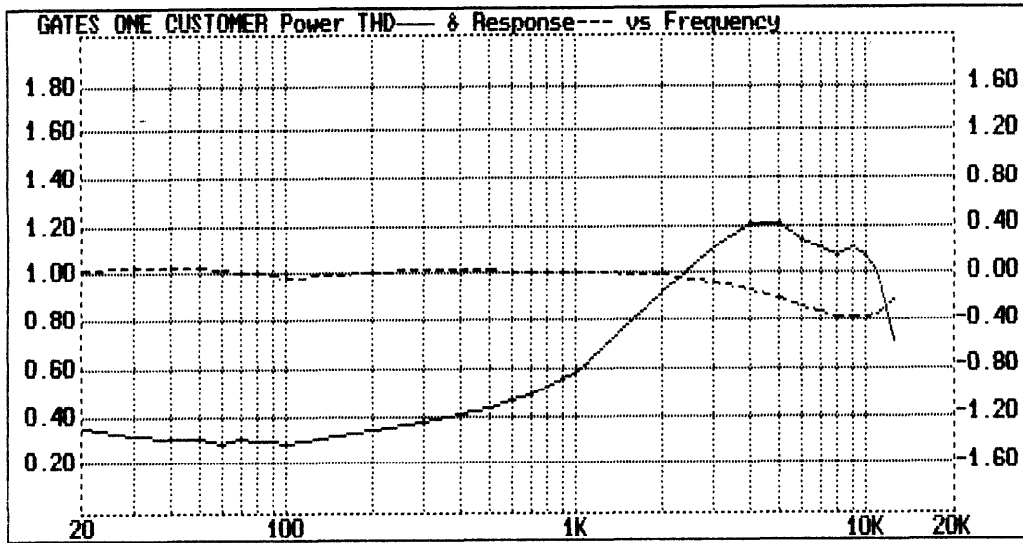
MONO RESPONSE AND THD. REF 1KHz at 95% MODULATION



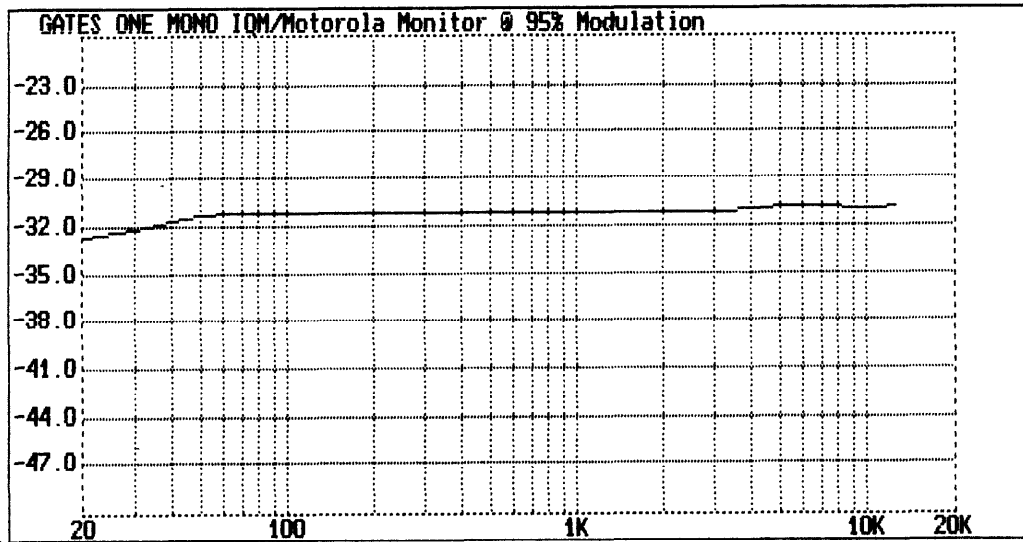
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MONO RESPONSE AND THD. REF 1KHz at 95% MODULATION



IQM TAKEN FROM MOTOROLA MONITOR L-R OUTPUT - REF. 1KHz @95%

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<u>POWER SETS</u>	<u>POWER OUT (WATTS)</u>	<u>MULTIMETER PDM LEVEL</u>
HIGH(6)	1000	6.4
5	900	6.1
4	750	5.6
3	500	4.7
2	250	3.5
LOW(1)	100	2.4

AUDIO INPUT (for 100% modulation)

10.0 dbm (10 ±1 dbm at 1000 Hz)

INTERMODULATION DISTORTION (at 95% modulation, 1 KW,4:1 ratio)

1.38 % (1.5% maximum)

BESSEL FILTER RESPONSE (12.5 Khz roll-off at High Power)

1.69db (1.8 ±0.5 db)

CARRIER SHIFT (Reference: 100 %, 1000 Hz modulation)

0.2 % (1% maximum)

CARRIER NOISE (Reference: 100 %, 1000 Hz modulation)

HIGH PWR -61.87 db (-60 db or better);

CONTINUOUS RUN hours 24 (12 minimum)

<u>PANEL METERS</u>	<u>1100 W CARRIER</u>	<u>1100 W 100% MOD*</u>	<u>1000 W CARRIER</u>	<u>500 W CARRIER</u>
PA VOLTS	96.0	96.0	91.2	68.5
PA AMPS	13.0	13.0	12.4	9.4
RF PWR (W)	1100.0	1125.0	1000.0	500.0
PA EFF (%)	88%	* 1000 Hz		

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<u>MULTIMETER</u> POSITION		1000 W CARRIER	500 W CARRIER
PDM LEVEL	(0-10)	6.4	4.7
SUPPLY VOLTAGE	(0-300 Vdc)	245.0	250.0
SUPPLY CURRENT	(0-10 Amps)	5.3	3.2
RF DRIVE	(0-10)	7.6	7.6
VSWR DETECTOR NULL	(0-10)	0.0	0.0
VSWR DETECTOR NULL SET	(0-10)	5.5	5.5
UNDER DRIVE SET	(0-10)	6.3	4.7
CURRENT SET	(0-10 Amps)	8.9	8.9
VOLTAGE SET	(0-300 Vdc)	300.0	300.0
BATTERY	(0-10 Vdc)	9.8	9.8

OUTPUT NETWORK FREQUENCY DETERMINED PARTS:

SYMBOL	QTY	VALUE		PART #
A21C1	1	2700	PF	504-0418-000
A21C2A	1	6200	PF	504-0396-000
A21C2B	1	6200	PF	504-0396-000
A21C3	1	1100	PF	504-0474-000
A21C4	1	1500	PF	504-0465-000
A21L8	0	Not used at this frequency.		

A21L1 SHORTING STRAP NOT Used.

PA MODULE (A1) FREQUENCY DETERMINED COMPONENTS:

Capacitors P.N. 500-0883-000

C10, C15, C20, C25, C30, C35, C40, C45 Not Used.

Resistors P.N. 546-0305-000

R13, R14, R23, R24, R33, R34, R43, R44; "A" 8 Used; "B" 8 Used.

Inductors L14, L15, L24, L25, L34, L35, L44, L45

#20 Buss Wire Jumper Used.

Transistors Q11-Q14, Q21-Q24, Q31-Q34, Q41-Q44

16 P.N. 380-0681-000 Used. Date Code

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OUTPUT MONITOR (A18) FREQUENCY DETERMINED COMPONENTS

SYMBOL	QTY	VALUE	PART #
A18L2	1	18 UH	494-0401-000
A18L3	1	12 UH	494-0399-000
A18L4	1	#20 Buss Jumper	
A18C9	1	#20 Buss Jumper	
A18C10	1	1000 PF	500-0844-000

SPARK GAP: E1 set at 0.020 inch.

TUNING:

L2/L3 tap set AND L1 set to 4 1/4 ACTIVE turns to provide the combiner a load of 7.79 Ohms at -32.0 degrees.

L2/L3 TAPS LOCKED ? YES

DRIVE LEVEL Set To 28.0 Vp-p.

IPA: (A5 & A26) FREQUENCY DETERMINED COMPONENTS:

SYMBOL	QTY	VALUE	PART #
A5L1	0	Not used at this frequency.	
A5L2	0	Not used at this frequency.	
A26T1	1	20 Turns	929-8305-546
A26C1A	4	100 PF	516-0204-000
A26C1B	0	Not used at this frequency.	

RF DRIVE PHASE SHIFT (degrees)

(A1)	R13 REF	R14 +1	R23 +1	R24 +1
	R33 0	R34 +2	R43 +1	R44 +1