BECKER AVIONICS, INC.

FINAL INSPECTION / TEST

(Select One)

☐	TG480-10	Transceiver, 10W	VHF, 118 - 136.975 MHz	0940.437-926
☐	TS480-10	Transmitter, 10W	VHF, 118 - 136.975 MHz	0940.460-923
☐	TG480-20	Transceiver, 20W	VHF, 118 - 136.975 MHz	0940.436-926
☐	TS480-20	Transmitter, 20W	VHF, 118 - 136.975 MHz	0940.461-923
☐	TG480-50	Transceiver, 50W	VHF, 118 - 136.975 MHz	0940.435-926
☐	TS480-50	Transmitter, 50W	VHF, 118 - 136.975 MHz	0940.462-923
☐	RS480	Receiver	VHF, 118 - 136.975 MHz	0940.463-923

SERIAL NUMBER: _____

1. TRANSMITTER TEST

TX. Carrier Power (Without Modulation):

	Requirement		
	VSWR 1:1	VSWR 2:1	Freq. Offset
TG/TS480-10	10 W		< 1200 Hz
TG/TS480-20	20 W		< 1200 Hz
TG/TS480-50	50 W		< 1200 Hz

118.000 MHz	50 W	50 W	± 125 Hz
127.500 MHz	50 W	50 W	± 124 Hz
136.975 MHz	50 W	50 W	± 116 Hz

Modulation and Distortion:

Dynamic Mike (1 kHz / 10mV audio input)

	VSWR 1:1		VSWR 2:1	
	Mod.%	Dist.%	Mod.%	Dist.%
Requirements:	85 +/-5 %	< 5%	85 +/-10%	< 10%
118.000 MHz	83	1.8	82	2.1
127.500 MHz	83	1.7	83	2.0
136.975 MHz	84	1.4	84	1.9
Over modulation:	none	(none)	none	(none)

Standard Remote Mike (1 kHz / 775mV audio input)

	VSWR 1:1		VSWR 2:1	
	Mod.%	Dist.%	Mod.%	Dist.%
Requirements:	85 +/-5 %	< 5%	85 +/-10%	< 10%
118.000 MHz	84.5	2.1	83.5	2.1
127.500 MHz	83.7	2.3	82.4	2.3
136.975 MHz	83.5	1.9	83.6	2.0
Over modulation:	none	(none)	none	(none)

		Min.	Requirements	Max.	Measurements
Modulation AF Response: (127.5 MHz, 775mV, 1 kHz)					
fmod.=	100 Hz			-20	-23.5 dB
	350 Hz			6	-4.7 dB
	500 Hz				-0.8 dB
	1000 Hz		0		0 dB
	2500 Hz			6	3.7 dB
	4000 Hz			-20	-24.1 dB
Transmitter Compressor:					
(10mV - 30 mV, 1kHz)	dif. fmod.=			5	0.4 %
(775mV – 1V, 1kHz)	dif. fmod.=			5	0.2 %
Automatic Shutdown:			2 minutes		2 min
Tx Alarm:		OK			Ok

2. RECEIVER TEST

Sensitivity (SINAD)			
(1000 Hz, 30% mod., AF Level = 775mV, 3uV EMF)			
118.000 MHz	12dB		12.5 dB
127.500 MHz	12dB		13.5 dB
136.975 MHz	12dB		14.0 dB
SQL Sensitivity: (Squelch opens at):		5uV	1.78 uV
AGC Characteristic:			
(127.5 MHz, 1000 Hz/30%, AF Level=775mV)			
(5 uV – 100 mV EMF)		3dB	1.9 dB
Bandwidth:			
(127.500 MHz / 1uV EMF / 400Hz / 80% / 0 dB AF output)			
(Increase RF output by 6dB)			
Higher frequencies	8		11.5 kHz
Lower Frequencies	8		11.6 kHz

	Min.	Requirements	Max.	Measurements
Selectivity:				
(127.500 MHz / 1uV EMF / 400Hz / 80% / 0 dB AF output)				
127.475 MHz	60			68 dB
127.525 MHz	60			69 dB
(127.500 MHz / 1uV EMF / 400Hz / 80% / 0 dB AF output)				
(Increase RF output by 40dB)				
Higher frequencies			17	14.3 kHz
Lower frequencies			17	14.4 kHz
Audio Output Power and Distortion factor:				
(127.500 MHz / 100 uV / 1000 Hz / 85%)				
AF at 600 Ohms	≥7			12.5 V
Distortion @ 7V:			10	5.1 %
Audio Reponse:				
(127.5 MHz / 100uV / 1000Hz / 30%)				
350 Hz			-6	-3.4 dB
1000 Hz				0 dB
2500 Hz			-6	-2.7 dB
4000 Hz	18			-21.2 dB

3. **CONTROL PANEL TEST**

Display: (all digits flashing)		OK	OK
MDE Key:		OK	OK
Freq. Selection:	1MHz	OK	OK
	1KHz	OK	OK
Exchange Key:		OK	
Service Mode:			
- SF1 Setting the switch to ON Threshold of the squelch		OK	OK
- SF2 Cal. The temp. sensors		OK	OK
- SF3 Setting the addressable storage location		OK	OK
- SF4 Setting temperature display		OK	OK

- SF5 Switching on the scan function	OK		OK
- SF6 Setting the hold timer after completion of a call in the scan mode	OK		OK
- SF7 Inhibiting the freq. setting (Channel selection only)	OK		OK
- SF8 Inhibiting the frequency storage	OK		OK
- SF9 Erasure of stored frequencies	OK		OK
- SF10 Setting the "channel start" of the scanning mode	OK		OK
- SF11 Setting the "channel end" of the scanning mode	OK		OK
-SF12 Entering a password to interlock the equipment configuration	OK		OK
-SF13 Set Sensitivity for Dynamic Mike	OK		OK
-SF14 Inhibit Tx for Memory-Channels	OK		OK
-SF15 Set Channel Priority ON/OFF	OK		OK
-SF16 Set Squelch Fast Mode	OK		OK
Panel illumination:	OK		OK
AC/DC Switchover	OK		OK

4. ACCESORY FUNCTIONS

a. 15 VDC (500mA)	12		16	15
b. RS 232		OK		OK
c. PTT (Gnd-Active)		OK		OK
d. COR (Low-Active)		OK		OK
e. Tx Audio				
(%Mod, 0dB/775mV)	70		95	83.5
Over modulation:		none		none
f. Rx Audio (dB)	-9	0	1	-1
g. Recorder Output				
Tx Audio (dB)	-9	0	1	-2
Rx Audio (dB)	-9	0	1	-1

Remarks:

AR4201 S/N: _____

RF Power Amplifier S/N: _____

Reflectometer S/N: _____

Bandpass Filter, 10717A, 0994.403-341 S/N: _____

SINGLE CHANNEL OPTION

Frequency: _____ MHz

Internal band pass filter Yes:_____ No:_____

The TG/TS/RS480-(xx) has been tested successfully and is ready for operation.

Test Equipment Used:

DESCRIPTION	SERIAL NUMBER
MARCONI RADIO TEST	132628/032
TEKTRONIX 485 OSCILLOSCOPE	B144152
BIRD 4431 WATTMETER	8849
DCR-25B DC POWER SUPPLY	1256

Tested by: _____ Title: _____ Date:_____

Inspected by: _____ Title: _____ Date:_____