TELEDYNE MEC
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This model number is subject to the jurisdiction of the U.S. Department of Commerce.

MODEL NO. MEC 5441 (GR)
MEC 5442 (FE)
Ku/DBS BAND

TYPICAL OPERATING CONDITIONS				POWER SUPPLY REQUIREMENTS		
ELEMENT		VOLTAGE	CURRENT	VOLTAGE MIN	VOLTAGE MAX	CURRENT MAX
HEATER		−6.1 Vdc	1.6 A	−5.8 Vdc	−6.6 Vdc	2 A
HELIX	W/ RF	GROUND	2.3 mA	GROUND		10 mA
	W/O RF		1.0 mA			
FE ON		−25 Vdc	0.3 mA	0	−75 Vdc	1 mA
FE OFF		−1300 Vdc	0.02 mA	−1300 Vdc	−1500 Vdc	1 mA
GRID ON		174 Vdc	0.5 mA	125 Vdc	250 Vdc	5 mA
GRID OFF		−250 Vdc	0.5 mA	−250 Vdc	−500 Vdc	1 mA
CATHODE (Ek)		−10.2 kV	295 mA	−10 kV	−10.8 kV	300 mA
COLLECTOR W/ RF	#1	5.71 kV	38 mA	56% x Ek ±2%		100 mA
	#2	4.08 kV	255 mA	40% x Ek ±2%		300 mA

NOTE 1: CATHODE VOLTAGE IS MEASURED WITH RESPECT TO GROUND.
NOTE 2: HEATER, COLLECTOR, GRID OR FOCUS ELECTRODE (FE) VOLTAGES ARE MEASURED WITH RESPECT TO CATHODE.

SELECTED PERFORMANCE	TYPICAL	SPECIFIED
INPUT VSWR	1.7:1	2.5:1
OUTPUT VSWR	2.0:1	2.5:1
MAXIMUM DUTY	——	CW
FE CAPACITANCE	50 pF	65 pF
GRID CAPACITANCE	37 pF	50 pF
MIN HARMONIC SEPARATION	−30 dBc	−15 dBc *
NOISE POWER DENSITY	−13.9 dBm/MHz	−5 dBm/MHz
PRIME POWER	1299 W	1400 W
TEMPERATURE RANGE	−40° to 85 °C	——

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

GAIN IS W/O EQUALIZER.

RF PERFORMANCE			
FREQ GHz	TYP SAT POWER OUTPUT (WATTS)	MIN SPEC POWER OUTPUT (WATTS)	TYP GAIN AT SPEC POWER dB
14.0	400	350 *	51
14.1	400	350	51
14.2	400	350	51
14.3	400	350	51
14.4	400	350	50
14.5	400	350	50
17.3	400	300	46
17.4	400	300	46
17.5	400	300	46
17.6	400	300	46
17.7	400	300	46
17.8	400	300	46
17.9	390	300	45
18.0	380	300	45
18.1	360	300	44
18.2	355	300	43
18.3	340	300	43
18.4	330	300	43

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