PowerWave: 850-870 MHz 90W Power Amplifier line-up

KTC1/21/98

Specifications:	Min	Typ	Max	Unit
Frequency	850.00	860.00	870.00	MHz
Output Power	90.00			Watts
Input Power	0.25		25.00	Watts
Input Return Loss			-14.00	dB
Gain	10.00		30.00	dB
Supply Voltage	26.00	28.00	30.00	V
Total Current			11.40	A
Efficiency	36.00			%

Alarms indicators
PWR ON
OVRTEMP
LOW INPUT PWR
HIGH INPUT PWR
LOW PWR
HIGH VSWR

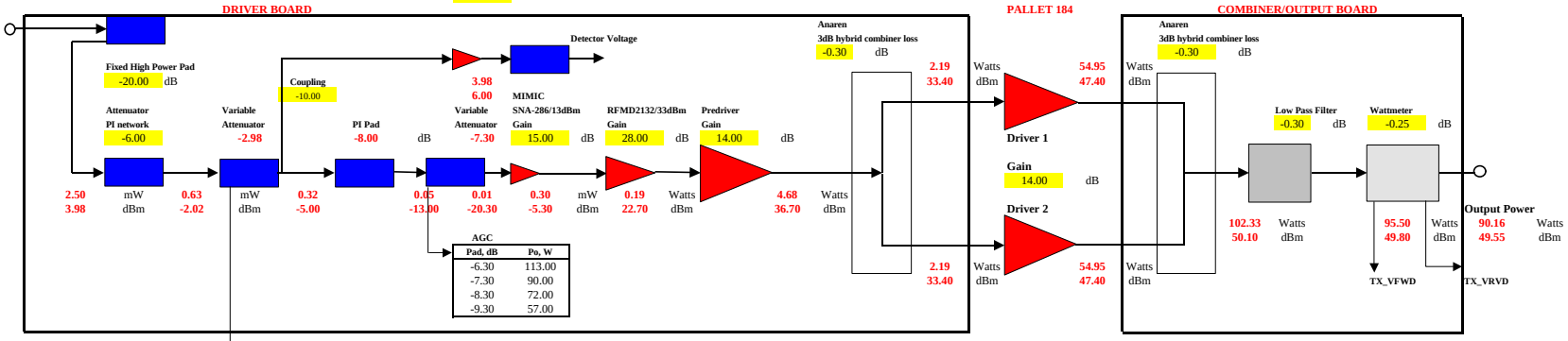
Notes: Yellow box is for input
Red highlighted number is calculated, cannot modify.

MRF184

Calculate Junction Temperature (C)=Tc+Pd*Rjc:		**99.87**	at +25C
Assume case temp@25C=	50.00	**134.87**	at +60C
Theta jc=1.1C/W	1.10		
A+ (V)	28.00		
I (A)	3.50		
Po (W)	55.00		
Pin (W)	2.34		

Input Power
0.25 W
23.98 dBm

MIMIC
SNA-386/11dBm
Gain
21.00



Pin	DIP SWITCH	Attenuator
0.25	1.00	-6.00
0.50	2.00	-9.00
1.00	3.00	-12.00
2.00	4.00	-15.00
4.00	5.00	-18.00
8.00	6.00	-21.00
16.00	7.00	-24.00
25.00	8.00	-26.00

Description	*Gain/Loss dB*	*Pin Watt*	*Pout Watt*	*Pin dBm*	*Pout dBm*	*Usage*	*Combiner/Splitter Way*
Output Power	0.00	90.16	90.16	49.55	49.55	1.00	
Wattmeter	-0.25	95.50	90.16	49.80	49.55	1.00	
Low Pass Filter	-0.30	102.33	95.50	50.10	49.80	1.00	
3dB hybrid combiner	-0.30	54.95	102.33	47.40	50.10	1.00	2.00
Driver	14.00	2.19	54.95	33.40	47.40	2.00	
3dB hybrid splitter	-0.30	4.68	2.19	36.70	33.40	1.00	2.00
Predriver	14.00	0.19	4.68	22.70	36.70	1.00	
RFMD2132/33dBm	28.00	0.00	0.19	-5.30	22.70	1.00	
SNA-286/13dBm	15.00	0.00	0.00	-20.30	-5.30	1.00	
Variable Attenuator	-7.30	0.00	0.00	-13.00	-20.30	1.00	
PI Pad	-8.00	0.00	0.00	-5.00	-13.00	1.00	
Variable Attenuator	-2.98	0.00	0.00	-2.02	-5.00	1.00	
PI Attenuator	-6.00	0.00	0.00	3.98	-2.02	1.00	
Fixed High Power Pad	-20.00	0.25	0.00	23.98	3.98	1.00	
Input Power	0.00	0.25	0.25	23.98	23.98	1.00	
Total Gain (dB)	**25.57**						

Figure 4-2. K10 Block diagram