STATION	K218DI	FM TRANSLATOR
LOCATION	WOODROW, TX	
CHANNEL	FM TRANSLATOR	218

CALCULATED FOR

ERP OF 200 WATTS (0.20 KW) H & V

K218DI

WOODROW, TX
FM TRANSLATOR

COMPUTED LINE LOSSES - BASED ON MANUFACTURES TABLES AT OPERATING FREQUENCY

DESCRIPTION AND LENGTH NEAREST FOOT		SIZE/TYPE		LENGTH		EXTRA LOSS (dB) (IF ANY)	SECTION LOSS (dB)	TOTAL (dB)
JUMPER ANT	TRANSMISSION LINE					0	0.000	0.000
VERTICAL RUN	TRANSMISSION LINE	1/2" FOAM	FEET	165.00		0	1.086	1.086
BLD TO TOWER	TRANSMISSION LINE	1/2" FOAM	FEET	85.00		0	0.559	0.559
JUMPER TRANS	TRANSMISSION LINE					0	0.000	0.000
MISC ANT/LINE/TERMINATION CONNECTOR LOSSES			QYN	2.00		0	0.030	0.030

FM	218	CH
FREQ:	91.5	MHz

FREQUENCY SENSITIVE COMPONENTS		
	DB PER 100 FT	SYSTEM JUMPER AT ANTENNA
0.6580	DB PER 100 FT	VERTICAL RUN ON TOWER
0.6580	DB PER 100 FT	HORIZONTAL RUN TO TX BLD
	DB PER 100 FT	SYSTEM JUMPER AT TRANSMITTER
0.0151	DB PER PAIR	TERMINATING CONNECTOR LOSSES
		Insertion Loss = 0.05 X sqrt (freq GHz)

TOTAL FEET (MIXED)	250.00

CLIENT PROVIDED LOSSES (IF ANY)

COMPUTED SYSTEM LOSSES		
SUBTOTAL	1.675	dB Line Loss (with jumpers, line, and connector losses) from above
	0.000	dB additional losses (Bandpass filter Telewave TBPC 1008-1)
	0.000	dB additional losses
TOTAL	1.675	Total System Loss in dB
	67.99%	Transmission System Efficiency Factor = Eff (%)

COMPUTED TPO NEAREST WATT
314

0.200	kW	-6.990	dBk	STATION MAXIMUM ERP
0.937	X (Gain)	-0.283	dBd	ANTENNA GAIN PER ANT SPEC SHEET
0.213	kW	-6.707	dBk	ANTENNA INPUT
0.101	KW	1.675	dB	SYSTEM TOTAL LOSSES
0.314	kW	-5.032	dBk	TRANSMITTER POWER

ANTENNA SPECIFIED	
MAKE	SWR
MODEL	FM1
BAYS	2
SPACING	0.75
MODE	NON-DA
POLARIZATION	H & V
ANT GAIN	0.937

105%	0.330	TPO HIGH LIMIT
100%	0.314	NOMINAL
90%	0.283	TPO LOW LIMIT

Math Proof Check

TPO	X	EFF	X	ANT G	=	ERP
0.314		67.99%		0.937		0.200

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