

STATION	K287BT	FM	<div> CALCULATED FOR ERP OF 0.20 KILOWATTS H & V </div>				K287BT SANDPOINT, IDAHO FM TRANSLATOR			
LOCATION	SANDPOINT, IDAHO									
CHANNEL	FM TRANSLATOR	287								

COMPUTED LINE LOSSES - BASED ON MANUFACTURES DATA 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	FEET		0.000	0.000
VERTICAL RUN	TRANSMISSION LINE	7/8" FOAM AVA5-50J	193.00	0.680	0.680
BLD TO TOWER	TRANSMISSION LINE	7/8" FOAM AVA5-50J	68.00	0.240	0.240
JUMPER TRANS	TRANSMISSION LINE			0.000	0.000
MISC ANT/LINE/TERMINATION CONNECTOR LOSSES		QYN	2.00	0.068	0.100

FM	287	CH
FREQ:	105.3	MHz

FREQUENCY SENSITIVE COMPONENTS			
	DB PER 100 FT	SYSTEM JUMPER AT ANTENNA	
0.3524	DB PER 100 FT	VERTICAL RUN ON TOWER	
0.3524	DB PER 100 FT	HORIZONTAL RUN TO TX BLD	
	DB PER 100 FT	SYSTEM JUMPER AT TRANSMITTER	
0.0162	DB PER PAIR	TERMINATING CONNECTOR LOSSES	

TOTAL FEET (MIXED)
261.00

COMPUTED SYSTEM LOSSES

SUBTOTAL	1.020	dB Line Loss (with jumpers, line, and connector losses) from above
CLIENT PROVIDED LOSSES (IF ANY)	0.200	dB additional losses (Bandpass filter if used, example Telewave TBPC 1008-2)
TOTAL	1.220	dB additional losses (example Kintronic AM isolation coil)
Total System Loss in dB		

75.51%
Transmission System Efficiency Factor = Eff (%)

COMPUTED TPO NEAREST WATT

576

0.200 kW	-6.990 dBk	STATION MAXIMUM ERP
0.460 X (Gain)	-3.372 dBd	ANTENNA GAIN PER ANT SPEC SHEET
0.435 kW	-3.618 dBk	ANTENNA INPUT
0.141 kW	1.220 dB	SYSTEM TOTAL LOSSES
0.576 kW	-2.398 dBk	TRANSMITTER POWER

Math Proof Check

TPO	X	EFF	X	ANT G	=	ERP
0.576		75.51%		0.460		0.200

ANTENNA SPECIFIED

MAKE	NIC
MODEL	BKG77
BAYS	1
SPACING	1.00
MODE	OMNI
CIRCULAR	H & V
ANT GAIN	0.460

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