

SatDish 1.1 -- Satellite Parabolic Antenna Calculator

1. Introduction. SatDish calculates the transmit antenna gain, receive antenna gain, beam width, and receive figure of merit (G/T) of a parabolic satellite antenna.

2. Installation. Just send the SATDISH.txt file to the HP48 or HP49.

3. Operation.

a. Enter the five input variables:

- (1). DIA. The antenna diameter in meters.
- (2). EFFY. The antenna efficiency in percent.
- (3). TXF. Transmit frequency in GHz.
- (4). RXF. Receive frequency in GHz.
- (5). TEMP. Noise temperature of the receive system in degrees Kelvin.

b. Press RPRT. You will get a report as follows:

Report	Explanation
Dia: 9. m Effy: 60%	DIA and EFFY parameters
TRfr: 14.5 11.5 GHz	TXF and RXF parameters
TRbw: .17 .21 °	Transmit and Receive beam width in degrees
TRgn: 60.5 58.5 dBi	Transmit and Receive antenna gain in decibels - isotropic
Tlna: 90 °K	TEMP parameter
G/T: 38.9 dB/°K	Receive figure of merit -- gain over noise temperature

c. Printing. Press [NXT] PRINT to print the report. Select the printing device (IR or wire) by pressing PRDEV.

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5. Version 1.1 established new text file for loading on HP49g+ and includes beam width.

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