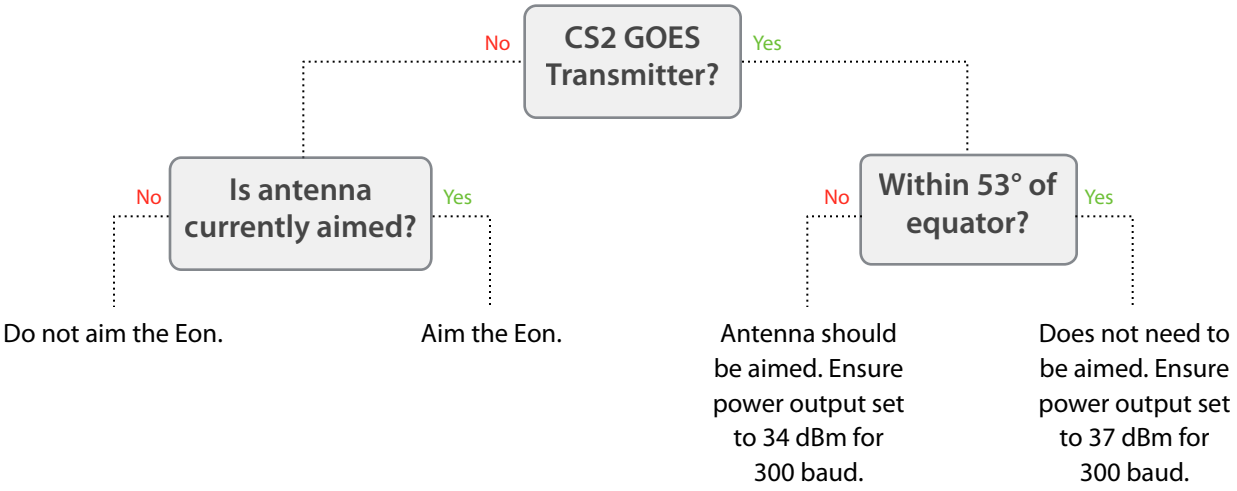
Technical Bulletin

EON Antenna Installation

The procedure to install your Eon antenna will vary depending on whether the GOES transmitter being used is CS1 (HDR) or CS2 (HDR2).

Summary



CS2 transmitters:

The EON GOES antenna has a gain of 5.7 dB on axis and the output power of the GOES transmitter must be set as shown in the table below to achieve the recommended EIRP. The values in the table allow for a typical 0.5 dB loss due to the antenna cable and connectors. If the cable loss for a particular installation is higher than this the output power should be adjusted accordingly.

Bit Rate	Antenna Orientation	Output Power (dBm)	Expected EIRP (dBm)	NOAA Required EIRP (dBm)
300	Aimed	34	39	37 - 41
1200		38	43	43 - 47
300	Vertical	37	39	37 - 41
1200		41	43	43 - 47

The output power numbers in the table for the vertical antenna orientation are appropriate for locations south of 53 degrees latitude. For higher latitudes the output power should be increased or the antenna should be aimed at the satellite. Note that not all GOES transmitters

can achieve an output power of 41 dBm. If yours doesn't the antenna may need to be aimed at the satellite if a bit rate of 1200 bps is used.

The table provides a guideline for setting transmitter output power for use with the EON antenna. The output power of a specific station may need to be adjusted from these values, either up or down, to achieve the recommended EIRP as measured by the GOES system and reported in the received message.

CS1 Transmitters

The output power level of CS1 transmitters is not field-adjustable. After installing the Eon antenna (in the same way that the antenna being replaced was installed—either aimed in the case of a Yagi, or not in the case of an omnidirectional), the resulting EIRP may be lower. However, the reliability of transmissions will not be affected as long as the EIRP as measured by the GOES system is higher than the minimum required by CS2 for the bitrate being used. i.e. EIRP > 37 for 300 bps, EIRP > 43 for 1,200 bps.

In the rare case that the EIRP is lower than expected (due to extremely high latitude, foliage blocking view of satellite, extremely long antenna cable, etc.) it is recommended that Eon not be used until the station is upgraded to a CS2 GOES transmitter.

For further information, contact us at 1.800.548.4264, or service@ftsenviro.com, or visit our support site at support.ftsenviro.com.