Link Budget for Telemetry at L band

S/S antenna transmit gain: 12 dBi
S/S maximum power: -2.5 dBW
Downlink path loss for 90° elevation angle and 1.452 GHz: 186.8 dB
E/S antenna receive gain: 35 dBi
E/S antenna receive noise temperature: 400K

Carrier allocated bandwidth: 500 kHz
IF Bandwidth: 350 KHz
Signal strength received:
C/No = - 2.5 + 12 – 186.8 + 35 – 10 log (400) + 228.6 = 60.3
C/N in IFBW = 60.3 – 10 log (350000) = 4.8 dB