Another example is to compare different 16-PPM formats at the same bitrate, say 2.5 Gb/s, and using uncoded BPSK as the reference sensitivity. As shown in [7], 16-PPM-PMQPSK would require a bandwidth of 5 GHz, and gain 3 dB in sensitivity. Basic 16-PPM would ~~also~~ require 10 GHz (or using polmuxed PPM, 5 GHz would do), while gaining 3 dB in sensitivity. For 16-PPM-QPSK the bandwidth requirement is $20/3 = 6.67$ GHz, with a sensitivity gain of 4.8 dB. Finally, the most sensitive format would be 16-PPM-PSQPSK, with the best sensitivity gain of 5.4 dB but ~~also~~ with the ~~highest~~ bandwidth requirement of $40/7 = 5.7$ GHz. These trade-offs are clearly illustrated in Fig 1 (a).