

TO: SAS Protocol WG  
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 Subject: OOB Signal Transmitter Requirements

I would propose replacement of Table 46 of SAS 1.1 r8 by one of the following tables. I hold a slight preference to the first version, but would find the second acceptable.

**Table 46: OOB Signal Transmitter Requirements**

OOB Signal	Nominal Burst Tlme	Minimum Burst Tlme	Maximum Burst Time	Nominal Idle Tlme	Minimum Idle Tlme	Maximum Idle Time	Minimum Negation Tlme
COMINIT/ COMRESET	106.7ns	103.5ns	109.9ns	320ns	310.4ns	329.6ns	533ns
COMSAS	106.7ns	103.5ns	109.9ns	960ns	931.2ns	988.8ns	1600ns
COMAWAKE	106.7ns	103.5ns	109.9ns	106.7ns	103.5ns	109.9ns	186ns

**Table 46: OOB Signal Transmitter Requirements**

OOB Signal	Nominal Burst Tlme	Minimum Burst Tlme	Maximum Burst Time	Nominal Idle Tlme	Minimum Idle Tlme	Maximum Idle Time	Minimum Negation Tlme
COMINIT/ COMRESET	160 OOBI	156 OOBI	164 OOBI	480 OOBI	466 OOBI	494 OOBI	800 OOBI
COMSAS	160 OOBI	156 OOBI	164 OOBI	1440 OOBI	1397 OOBI	1483 OOBI	2400 OOBI
COMAWAKE	160 OOBI	156 OOBI	164 OOBI	160 OOBI	156 OOBI	164 OOBI	280 OOBI

Note that these are comparable with the requirements placed upon a SATA transmitter; SAS receivers are required to be able to operate with such transmitters.

While this is seemingly frivolous, I was asked by an individual who purchases a lot of drives “Shouldn’t I reject a drive that has a COMINIT idle time different from 320ns?”