

Table 2
 STATION REQUIREMENTS FOR Alpha STATION

Category	Requirement
Pass Band	02-20 Hz (Alpha and Beta)*
Seismometer Noise	10 dB below Peterson low earth noise model
Calibration	within 5% in amplitude and 5° in phase
Sample Rate	40 samples per second (±50 µs)
Resolution	18 dB below Petersons low noise model
Sensitivity	200.../nm @ 3 Hz
System Noise	10 dB below Petersons low earth noise curve
Dynamic Range	126 dB
Linearity	90 dB over the pass band
Timing Accuracy	1 ms (Network standard timing required)
Operating Temperature	-10° C to 45° C
Authentication	required
State of Health	a minimum of clock status, calibration status and vault status
Format	must be one of the official GSE formats
Protocol	TCP/IP (Beta)
Delay in Transmission	< 15 seconds
Data Frame Length	< 1 second
Data access	Priority given to IDC, then NDC
Disk Buffer	7 days
Data Availability	greater than 99%
Timely Data Transmission	greater than 98%
Station Location	known within 100 meters relative location of array elements
known	to within 1 meter
Seismometer Orientation	known within 1 degree

* 8.0 hertz for stations with "unique" capabilities