Portable vibration analyzers
These portable vibration analyzers record the vibration of industrial machines, to monitor their condition and diagnose their faults. The Series includes “SCOUT” models for use in hazardous areas (explosive atmospheres) and “COMMTEST” models for less stressful environments. There are 2-channel and 4-channel versions of each, to suit your data acquisition and analysis needs.

Designed in and for the 21st century
These two-part solutions utilize the power and connectivity of modern industrial smartphones and tablets, paired with a small form factor, rugged data acquisition module. This gives the best of both worlds, a fast handheld device full of accessories and communication options, and a simple durable interface to sensors on your machines.

Flexible handheld options
Choose from multiple handheld devices to meet your form factor, screen size, and hazardous rating needs. Update your handheld at any time, load the System 1 Collector app onto the new device and get collecting.

So easy to carry
Carry the data acquisition module using a shoulder strap or a belt clip. Sensors mount onto sensor keepers. Hold the industrial smartphone or tablet in your hand, on a belt clip, or on a neck strap. So you can focus on your job and move safely between machines.

Powerful and connected
Vibration recordings are viewed and stored on the handheld device. It runs the Android OS, so you can use it like any smartphone or tablet to take pictures and video, send text messages, check email, make phone calls, track your location, create SOS alerts, and run other enterprise apps. Try doing all that on an old school data collector!

High performance data acquisition
Unlike most products on the market, the intrinsically safe SCOUT devices retain the same high performance and long battery life as their non-rated COMMTEST brethren. Ten hours of continuous use, while supporting up to: 80 kHz Fmax, 12,800 line spectral resolution, 6-Pack super fast measurements, 4 channel simultaneous sampling, optional tachometer. And the firmware updates automatically from the handheld. Amazing!

System 1 software, your plantwide solution
Use System 1* to prepare routes, analyze data, detect long-term trends, set and detect alarms. Then synchronize data with your SCOUT handheld using WiFi, file transfer, cellular network, or a USB cable. But System 1 doesn’t stop there, it’s the same powerful package that’s coupled with a broad range of Bently Nevada condition monitoring and protection products. One source of the truth, modern and plantwide.
## Specification summary
(For full details see datasheets: SCOUT 109M0226, COMMTEST 109M0792)

### Sensors
- **Sensor input simultaneous sampling**: SCOUT220–IS & COMMTEST220: 2 channels
  - SCOUT240–IS & COMMTEST240: 4 channels
- **Compatible sensor types**: Accelerometer, velocity, displacement, voltage.
- **Base accuracy**: AC signals: ± 1% of reading, DC level: ± 1% of full scale
- **Frequency range (±3dB)**: 1 Hz to 70 kHz (0 Hz to 70 kHz when DC coupled)

### Tachometer
- **Optional laser tachs**: 3 alternatives, from non-rated to IS rated
- **Compatible tach types**: Laser, contact, TTL, Keyphasor
- **Power output**: 5V, 40mA. Rated Zone 2, 22 and Div 2
- **Threshold and hysteresis**: Manual or Automatic
- **Speed range**: 60 rpm to 1,200,00 rpm (1 Hz to 20 kHz)

### Spectra
- **Fmax options**: 25 Hz to 80 kHz (28 options), orders based 1X to 999X
- **Spectral resolution**: 400 to 3200 or 12800 depending on model & chans
- **Averaging**: 1 to 128 averages, 0 to 87.5% overlap
- **Demodulation**: Classic algorithm: 23 band options
  - Peak algorithm: 4 band options
- **6Pack**: Spec & Wfm for each of: LF, HF, Demod

### Communication
- **Bluetooth**: BT 4.0 Classic (for communication with handheld)

### Battery
- **Battery type**: 7.4V, 4000mAh, li-Ion, factory replaceable
- **Operating time**: 10 hours typical on route data collection

### Mechanical
- **Size**: 5.1” x 5.1” x 1.4” (130 x 130 x 35 mm)
- **Weight**: SCOUT: 1.5 lb, (680 g) COMMTEST: 1.3 lb (590 g)

### Environmental
- **Operating Temp**: 4 °F to 140 °F (-20 to 60 °C)
  - 122 °F (50°C) max in Ex haz areas
- **Ruggedness drop and sealing**: MIL-STD-810F 4’ (1.2 m) drops onto concrete, IP65
- **Hazardous area rating**:SCOUT220–IS and SCOUT240–IS:
  - IECEx & ATEX, Zone 1 & 21, Ex ia [ia] IIC T4 Ga
  - CSA Class I & II, Div ABCD & FG
  - COMMTEST220 & COMMTEST240: non-rated

### Handheld options
- **Numerous options**: Smartphones and tablets from ecom and isafe
- **Screen size range**: 4” to 8”
- **Wireless and GPS**: 4G/LTE, WiFi, BT 4.0, NFC, GPS ..
- **Cameras**: 3 to 8 MP
- **CPU**: 1.2 to 2 GHz, 4 to 8 cores
- **Battery**: 3600mAh to 8400 mAh, Li-Ion
- **Weight**: 325 g to 1250 g
- **Memory**: Up to 3 GB RAM, 32 GB ROM, 64 GB card
- **Ruggedness**: Up to IP68, -20 to 60 C (-4 to 140°F)
- ** Hazardous area rating**: From non-rated to Zone 1/21, Class I Div 1

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