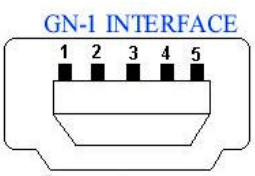
GN-1/GN-2 are designed specially for use with Nikon Cameras for Geotagging.
Please note compatibility: (not affected by use of different cables)
GN-1 – compatible with **D2X/D2Xs/D2Hs/D200/D3/D300/D90/D5000 (not D3100/D7000)**
GN-2 – compatible with **D90/D5000/D3100/D7000 (with GNG9/GNCD),**
D2X/D2Xs/D2Hs/D200/D3/D300 (with GNG3A)
Main features:
1. Industry leading high performance, low power SirfStar3 chip - high tracking sensitivity of -159dBm.
2. Low power consumption - less than 35mA average, less than 32mA full tracking - very important as it uses camera power.
3. Small and light - measures 34mm x 34mm x 20mm, weighs only 30g (including hotshoe mount) without cables.
4. Mount on hotshoe.

Specification:

GPS Chip	**SirfStarIII GSC3F**, 20 channel L1 frequency
Horizontal Accuracy	< 2.5m (Autonomous)
Time to First Fix Hot Start Warm Start Cold Start	Autonomous 50% -130dBm < 1sec <35sec <45sec
Sensitivity	-142dBM (acquisition) -159dBM (tracking)
Max Update Rate	1Hz
Support Protocol	NMEA version 3.0, TTL (Nikon compatible) level GGA, GSA, RMC, VTG (1Hz), GSV (1/5Hz) Baud: 4800 Datum: WGS-84
Max Altitude	<18,000m
Dynamics	<4g
Power consumption	**35mA** (acquisition), **32mA** (continuous tracking) average
Power supply	3.6~5.5v (5v from camera)
Size/ weight	34mm x 34mm x 20mm / 22g (including hotshoe mount)
Operating Temperature	-40 ~ + 85 degree Celsius
Storage Temperature	-40 ~ + 120 degree Celsius
Interface	5-pin Mini-USB B female connector
LED	**Continuous** – acquiring satellite, **Flashing** – position fix
Switch	On/off switch
Antenna	Patch Antenna



Pin Assignments:
1 +5v input (from camera)
2 Rx - TTL
3 Tx – TTL (Nikon compatible) level
4 NC
5 GND

Accessories:

GNG3 – Connecting cable for **GN-1** and Nikon D2X/D2Xs/D2Hs/D200/D3/D3x/D300 (not D700), with 2.5mm Canon type shutter release jack.
GNG3 A – Connecting cable for **GN-2** and Nikon D2X/D2Xs/D2Hs/D200/D3/D3x/D300 (not D700), with 2.5mm Canon type shutter release jack.
GNG9 – Connecting cable for Nikon D90 / D5000, with 2.5mm Canon type shutter release jack.
PTT2 – 2.5mm Canon type Shutter Release for use with **GNG3/9/GNCD** – very short and light – 20cm

GNCD - Connecting cable set for Nikon D90 / D5000 / D3100 / D7000 – include GNC + GNCGN + GNCAD

Tips on using GPS and power consumption.
GN-1 takes power from the camera. Depending on the model/cables used, the GPS takes power from camera in a different way. Power consumption for the GPS is less than 35mA so it is very minimal. In practice one hardly notices the decrease in battery life in normal picture taking. Relatively, if you are to take pictures and switch on GPS continuously in one session until the battery is exhausted, the number of pictures taken may be reduced by 10%.

Many GPS on the market obtains power from camera ONLY WHEN metering/focusing button is activated.
With **GNG3/GNG3A or GNG9 for Nikon** series, power is delivered from camera CONTINUOUSLY – meaning that GPS is powered all the time when connected, whether the camera is switched on or not.
With an on/off switch in the GPS, this has many advantages over ones that power the GPS WHEN metering/focusing is activated.

Metering/focusing systems use much more power than GPS itself. You save battery power by switching camera off when you are not ready to take pictures. By keeping the GPS on and position lock all the time with Camera **OFF**, you can be sure to take picture with GPS data available **AS SOON AS** you switch on camera to take picture. With on/off switch on the GPS, you can always switch the GPS off when attached to camera in order to save battery power. Hot start takes as little as 1 second so position lock can be acquired almost as soon as you switch on the GPS if you are in the open.
If you are in area of questionable surroundings, like in urban area or under tress, we would advise you to keep the GPS **on** if you are to take pictures any time and you want to be sure that position fix data is available.

However, our new **GNCD** cable powers GPS **ONLY** when camera is ON. Therefore it is recommended that "Auto meter off" is disabled in the GPS setting.

If you are using the GPS for the first time, or if you have moved hundreds of miles from the last place you have used it, always start in area under open sky, where the GPS can "see" the open sky so that it is easier/quicker to obtain position fix. It may take longer (up to 30 minutes) to get position fix when you use the GPS for the first time.
Cold start – Using the GPS for the first time or you have moved hundreds of miles from the last time you have used it.
Warm start – It has been long time (days/hours) since the last time you have used it, but within a short distance.
Hot start – It has been a short time (minutes) since the last time the GPS has acquired position fix and you are in the same area. It is just the same as keeping the GPS on, going through tunnel (position fix is lost) then come out of the tunnel.

Caution: As a common sense, **ALWAYS switch OFF Camera AND GPS** before connecting and disconnecting GPS and cable from Camera.