Optecks
Engineering Applied Solutions

CONVERTING YOUR DLP® NIRscan™ Nano FROM A REFLECTANCE TO TRANSMITTANCE MODULE

To convert your NIR Nano from making reflectance measurements to making transmittance measurements with Optecks' transmittance module, follow these three simple steps.

1. Remove the Reflectance Module.

The Reflectance Module is mounted on the DLP NIRscan Nano EVM by one screw and makes two electrical connections to the NIRscan Nano electronics boards. Two sets of wires emerge from the Reflectance module – one blue and white, the other red and black. Each set attaches to the Nano by a connector that plugs into a connector on the Nano's electronic boards. Carefully disconnect the Reflectance Module connectors from the Nano. Make note of which wires connect to which connectors on the Nano, as the same color coding and connectivity is used by the Transmittance Module. Next, locate the mounting screw located to the left of the window of the Reflectance Module. Carefully remove and save the screw. Once the screw is removed, the Reflectance Module should be easy to remove from the Nano.

2. Prepare the Transmission Module.

Carefully remove the Transmission Module from its packaging. Check and verify that the two sets of wires emerging from the module are not damaged and that the connectors on the end of the wires are intact. Locate the mounting bracket and make sure the screw hole is clear and clean.

3. Mount the Transmission Module on the Nano.

Place the Transmission Module onto the DLP NIRscan Nano EVM as shown. Make sure that the screw hole on the mounting bracket align well with the mounting hole on the Nano. When the screw holes are well aligned and the Module properly secured, the optical systems of the transmission modules will automatically align, and no further alignment of the Module or Nano is needed. With the mounting and screw hole properly aligned, insert the mounting screw and tighten lightly. Check alignment of the mounting bracket once more before final tightening of the mounting screws.

4815 S. Harvard Ave., Suite 330 • Tulsa, OK 74135
PHONE (918) 625-3396 • FAX (918) 970-6397 • www.Optecks.com

Verify that the mounting bracket is flush against the Nano after tightening the screws. If the bracket is not flush, slightly loosen the screws and adjust the Transmission Module until the bracket is flush and retighten the screws. Once the Transmission Module is securely mounted, insert the connectors on the end of each set of wires into the corresponding connector on the electronics board of the Nano. The wires should plug into the same connectors that the same wires on the Reflectance Module plugged into – i.e. the blue and white wire pair from the Transmission Module should plug into the same connector from which the blue and white wires from the Reflectance Module were removed, and likewise for the red and black wire. Once the connectors are securely inserted, the Transmission Module is ready for use when the DLP NIRscan Nano EVM is powered up.