SYMPHONIE® iPACKS

COMMUNICATION + POWER MODULES

Symphonie® iPacks combine reliable communication and autonomous power supply capabilities into one integrated package.

- Reliable data transfer from any location, with technology options including 2G, 3G, or 4G cellular and Iridium or Inmarsat BGAN M2M satellite options.
- Integrated autonomous power supply saves installation time and powers entire system.
- Receive data according to your schedule or application with call intervals ranging from 10 minutes to 14 days.
- Ready for WindLinx $\mbox{\sc wireless}$ service and web-based management portal.







BGAN modem + satellite antenna



Symphonie® iPACKS

Applications:

Wind and solar resource assessment and forecasting

Main Functions:

- Provides automated data delivery via cellular or satellite network
- Powers the data logger / communications system via integrated autonomous power supply with rechargeable battery and PV charge controller
- Enables real-time, two-way communication with data logger via MetLink, allowing automated data delivery as well as firmware and/ or configuration updates to data logger and iPack**
- Worldwide operation with various modem options (see "iPack Options" table below)
- Provides data logger time synchronization via GPS and/or internet time server**
- Cellular network information as well as band and operator management via SymphoniePRO Desktop Application**
- GPS position viewer automatically updates latitude, longitude, and elevation settings in the data logger

Data Collection Software:

- · SymphoniePRO Desktop Application
- Symphonie Data Retriever (SDR)

Data Delivery:

 Data delivery via SMTP email and/or MetLink connections, including: copy of *.RWD or *.RLD files, iPack status, and event logs**

Configuration:

- Configuration via desktop software on Windows PC**
- Remote configuration changes via MetLink (SymphoniePRO) or uploaded via email (POP3, for SymphoniePLUS3 or older)**

Configurable Parameters:

- Internet Service Provider settings**
- Other settings (schedule, SMTP, etc.) stored in data logger allowing minimal disruption to settings in the event of iPack swap**

Internal Batteries Included:

12 V Sealed Lead-Acid (SLA) battery with 2200 mA-hr rating (Iridium and iPackACCESS include two)

External Power Input:

- Charging circuit (solar PV panel) input (open circuit voltage 15 to 28 V)
- External battery input (12-14 V)

External Power Output:

• 12 V DC nominal output from internal SLA batteries(~4400 mA-hrs)***

System Requirements Windows PC with desktop software for applicable data logger model:

- · SymphoniePRO Desktop Application for SymphoniePRO Data Logger
- Symphonie Data Retriever (SDR) for SymphoniePLUS3 and older Symphonie series data loggers

Related Hardware

- iPack Programming Kit (item 3368)
- Universal iPack charger (item 3615, included in 3368)

NRG Systems iPack Options:

iPack Model	Item Number	Wireless Technology
Symphonie iPackGPS GSM/GPRS	4723	2G GSM (GPRS)
Symphonie iPackGPS 3G GSM	8979	2G + 3G GSM (GPRS, EDGE, HSPA (+), UMTS)
Symphonie iPackGPS LTE-VZW	9390	4G GSM (LTE-FDD; Verizon only)
Symphonie iPackACCESS BGAN M2M Satellite	10451, 10549	Inmarsat Satellite Network
Symphonie iPackGPS Iridium Satellite	4721	Iridium Satellite Network

For more information:

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ISO 9001: 2015 Certified ISO 14001:2015 Self-Certified



^{*}Separate air-time agreement required

^{**}Function enhanced and/or exclusively available with SymphoniePRO

^{***}Only available on iPackACCESS for BGAN M2M Satellite Terminal