

SATELLAR Linux radio modem

The world's first radio modem that is a Linux based IP router

SATEL, a leading manufacturer of radio modems for long range wireless data, demonstrated SATELLAR Digital System at Hannover Messe. SATELLAR is a smart radio modem combining TCP/IP-functionalities, a Linux platform for customer specific applications, and a versatile modular structure.

Whereas radio modems have conventionally been used to convey data across several kilometers – essentially replacing a cable in inconvenient locations – SATELLAR can do a lot more. The central unit, one of SATELLAR's modular units, is an ARM9-based computer with 64 MB RAM and 128 MB Flash memory for running customer specific software applications in addition to the Linux OS, IP-router, and web configuration server. The TCP/IP capabilities include SNMP, SSH and a Firewall among others. In addition to the Linux kernel, other components such as BusyBox, uClibc and SQLite are incorporated.

"Our radio modems have been reputable for their reliability to transfer data wirelessly in critical systems. Now we are able to go much further and provide an environment for developing the exactly right applications our customers need for their systems. As fewer devices are needed to achieve the desired functionalities, costs and complexity can be lowered", said Tuomas Pitkanen, CEO of SATEL.

The radio unit, which is the foundation of the system, offers a 20 MHz tuning range within the UHF frequency band of 380 – 520 MHz. With a transmit power of up to 1 W and a receiver sensitivity of -119 dBm, a range of over 10 km can typically be reached in urban environments. The carrier frequency can be freely configured in 6.25 kHz steps and the channel width can be set to 12.5 or 25 kHz.

"SATEL is very proud of SATELLAR. In addition to bringing new and unforeseen features to the radio modem market, we have been able to increase the performance of the radio itself, bringing radio modem performance to a completely new level", commented founder and board member Pekka Aura.

The robust die-cast aluminum housing and the wide operating temperature range of -30° to +75 °C, allow for deployment in harsh environments. Applications range from snow guns in the mountains to SCADA systems for monitoring oil or gas pipelines in the desert.

About SATEL

SATEL specializes in designing and manufacturing radio modems for long range wireless data communication. For over 20 years, the company's cornerstones have been RF performance, reliability and service. SATEL's radio modems have proven their reliability in applications ranging from Mt Everest to nuclear power plants and from professional motor sports to runway telemetry at airports. The company is headquartered in Finland and its distributor network serves over 100 countries. For additional information, visit www.satel.com.



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About radio modems

Radio modems communicate wirelessly with each other across a range of up to tens of kilometers. As radio modems are independent of mobile and satellite network operators, no recurring cost is associated with transferring data. Radio modems for both unlicensed and licensed frequency bands are available.

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