www.lumendigital.com

Lumen Digital Corporation

"Technical Experts
dedicated to **your success**"

Houston Experts Center
12670 Goar RD
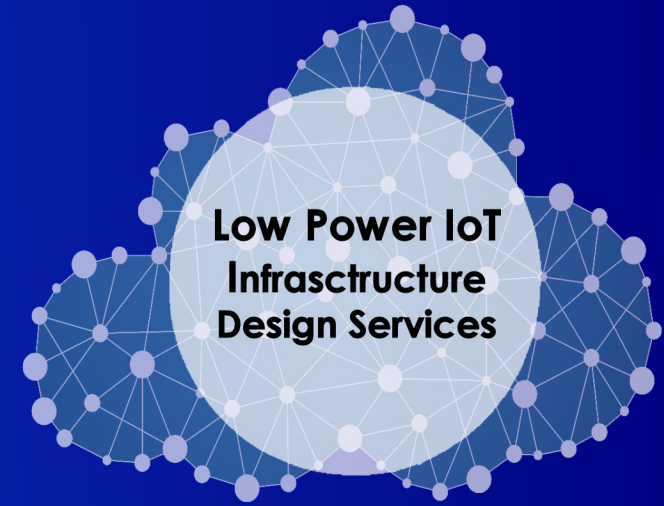Houston, TX 77077

Houston Manufacturing Center
12670 Goar RD
Houston, TX 77077

info@lumendigital.com
Phone (281) 556-5445

www.lumendigital.com

LUMEN DIGITAL

Low Power IoT
Infrasctructure
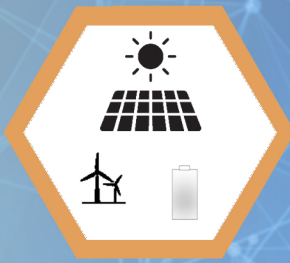**Design Services**

Applications

Security

Industrial

Oilfield

Environment

Low Power IOT Infrastructure Design Services

Lumen Digital develops custom, low power industrial and field IoT solutions for global remote operation.
Your success in IoT will depend on the implementation and the deployment.

Benefits
* Optomize operation and maintenance
* Reduce assets and costs
* Reduce downtime
* Increase productivity

Power
* Main: AC, battery, solar, wind, electrolysis / fuel cell
* Regulation: power minimization

Smart Sensing and Smart Equipment

*Multi-sensor boards: acceleration, velocity, position, pressure, level, torque, tension, compression, vibration, shocks, temperature and environment
* Interface with smart payloads (fire and gas alarm system, generator, humidifier, weather station, GPS, turbine, compressors, and flow meter)

Edge CPU
* Custom low power high performance multicore ARM and DSP design
* Open edge CPU: Beaglebone, Raspberry
* OS: WinEmbeddedCompact, Linux
* Custom Linux drivers
* Application: C/C++/C#, Node.js
* Programming environment: Visual Studio, Qt
* Edge storage: eMMC, FRAM, NOR Flash, NAND Flash.
* Video: image snapshot or video with compression

Edge Advanced Alogrithm
* Linear and non-linear systems
* Adaptative statistical models and control loops
* Matlab simulation

Communication
* Wireless: satellite, WiFi, cell, LoRa, Bluetooth, Zigbee, SimpleLink, Z-Wave...
* Wired: Ethernet, RS485/232, USB,...

Cloud
* Azure and AWS
* Interface with cloud (Azure, AWS)
* Interface with cloud databases
* Dashboard
* Data analysis
* Serverless application
* RESTful application

On-Site App
* Mobile application for IoT infrastructure monitoring

Applications
* Permanent gauge monitoring
* Gas compressor monitoring
* Gas lift monitoring
* Tank monitoring
* Field Production monitoring
* Well production monitoring