



The Scannex rt.buffer is a rugged, low power 3G & 2G remote telemetry logging unit providing a flexible solution in marine and harsh environmental conditions, with a powerful range of scripted collection and delivery options.

## Operating Modes

For battery operation, the rt.buffer stays in ultra low-power sleep mode and wakes up on a variety of triggers or internal timers to collect data from external sensors. It will periodically deliver the data over the 3G network.

## Data Collection Options

Serial: 300 to 115200 baud

Digital: 2x digital/pulse-count inputs

Analog: 24-bit differential analog input

## Data Delivery Options

The rt.buffer can deliver to the cloud or directly to private servers in a fully transactional manner over 3G by:

- FTP Push
- FTP+TLS Secure Push

The outbound connection from the rt.buffer can also query the server to request whether updates are required (e.g. firmware, configurations) as well as requesting diagnostic data and logs.

## Lua Scripting

The flexible Lua scripting engine has full control to accept or collect sample data from serial/ModBus/analog/pulse. Data can be calculated and formatted in any ASCII or binary format, and any alarm conditions can be detected. It also provides control over delivery functions.

## Management

Configuration and administration of the rt.buffer can be done locally or remotely.

- USB connection (no driver needed) to Windows
- Remotely when connected to the IoT server

## Storage

128MB of non-volatile flash memory

## Data Transmission

3G (UMTS/HSPA+) global modem -PTCRB, GCF, ICASA approved (2G also supported)

Band: 800/850/900/1900/2100MHz @UMTS  
850/900/1800/1900MHz @GSM

## Power Supply:

The rt.buffer can run from internal batteries and/or external DC supply and will automatically power from whichever is the highest voltage. The options are:

- External 9-28VDC (not internally isolated)
- Internal primary Lithium battery pack (7.2VDC) either: single pack (2 x LSH20 D-cells), or dual pack (4 x LSH20 D-cells)
- 4 x alkaline D-cells (long life)

Typical power levels running on single internal lithium battery pack at 7.2VDC are:

- Sleep Mode: 40µA
- Collecting: 25mA
- Transmitting: 250mA

The rt.buffer can typically achieve a 3-5 year battery life with a single 7.2V Lithium battery pack (2 x LSH20 D-cells), based on:

- Sampling every 30 secs, for 1 sec
- Transmitting once per day -approx 60secs (dependent on network & data volume)

The rt.buffer can also provide a 3.6V output to the connected device under program control.

## Physical

The rt.buffer is housed in rugged IP68 (2 metres for 72 hours) die-cast aluminium case.

Size: 250mm x 210mm x 65mm

Weight: 1.3kg (excluding batteries)

## Connectors

Analog: Bulgin 6-pin skt  
Device: Bulgin 8-pin skt  
Engineer: Bulgin 8-pin plg  
Power: Bulgin 4-pin plg  
Antenna: Bulgin SMA

## Approvals

FCC 47 CFR Part 15A

ICES-003 Class A

CE Class A (EN55022, EN55024)

RoHS