

CPAT® ITX2

// Ingress Monitoring / Vehicle-based and Portable RF Transmitter

The ITX2 portable radio transmitter continuously transmits a low power ingress test signal in the upstream band of a broadband cable network to help technician find-and-fix the source of the ingress interference.

Using the ITX2 will enable you to take the 'find' time out of the 'find-and-fix' equation, diminishing subscriber downtime related to ingress impairments.

- Cost-effective transmitter operating on a fixed upstream frequency
- Continuous transmission of ingress test signal via transmitter's antenna
- No need to attenuate upstream node segments to locate ingress source
- Determines ingress location within a few meters
- Transmission compliant with FCC / EC regulations (no operating license required)
- No user intervention required during monitoring drive out



// Portable transmitter (ITX2)

The ITX2 transmitter kit (US Patent: US 8,752,108 - CAN Patent: CA 2,746,924) comprises a portable radio transmitter, a rechargeable battery pack, a portable transmitting antenna and a carrying pouch. The ITX2 operation requires the use of a web browser enabled device (cellular, laptop, etc.) which provides ingress level feedback to the user from the HE/Hub location.

// Efficient upstream bandwidth usage

The ITX2 can operate in the upstream band at one of these two frequencies: 6.78 MHz or 27.12 MHz. Since the transmitted carrier has a very narrow bandwidth, broadcasting of the selected frequency will have minimal impact on current and future upstream services.

// Hands-off Operation

When connected to the CPAT Flex ARD4 module in the vehicle, the ITX2 becomes part of the CPAT continuous ingress/leakage monitoring system. The ITX2 continuously transmits a low power digitally modulated RF signal, while technicians are driving out the plant during their daily work routine. ITX2 firmware updates are automatically uploaded as soon as the ARD4 communicates with the CPAT server through the vehicle's wireless communication link.

// Repair cycle

Once an ingress impairment is detected by the CPAT Flex monitoring system and stored in the CPAT database, the technician uses the portable ITX2 and a web browsing enabled cell phone to precisely and rapidly find-and-fix the source of the ingress impairment.



// Specifications

// Technical

Transmitter type	Digital receiver/demodulator
Frequency range	6.78 MHz or 27.12 MHz, set at factory
Bandwidth	30 kHz
Radiated power	Maximum : -8 dBm at 6.78 MHz Maximum : -16 dBm at 27.12 MHz
Antenna connector	BNC 50 OHM
Transmitted data	68 bits
Transmission duration	8 ms
Transmission interval	100 ms
Communication port	USB type A

// Electrical and Environmental

Power	Inputs: +12VDC 1.2A max +7.2VDC lithium ion battery pack of 2000 mAh ~ 0.3A
AC battery charger	Input: 100-240V ~ 50-60Hz 0.7A Output: +12VDC 1.66A Transient overvoltage II Rated pollution degree 2
Mains supply voltage fluctuations	Up to ±10 % of the nominal voltage
Operation time	6 hours nominal on battery power
Operating temp	-20° to +40° C / -4° to +104° F
Storage temp	-20° to +45° C / -4° to +113° F
Recommended use	Indoor use or outdoor use without exposing to direct sunshine or wet location
Altitude	Up to 2,000 m (6,560 ft)
Maximum relative humidity	80% for temperatures up to 31°C (88°F) decreasing linearly to 50% relative humidity at 40°C (104°F)

// Physical

ITX2 with its rubber holster only (no antenna):

Dimensions	19.5 cm x 8.6 cm x 4.5 cm / 7.7" x 3.4" x 1.8" [H x W x D]
Weight	550 g / 19 ounces

* Specifications subject to change without prior notice.

// Ordering Information

P/N

ITX2 – Portable Ingress Transmitter Kit @ 6.78 MHz 150-00026-100

Includes:

ITX2 Ingress Transmitter Module @ 6.78 MHz	150-00026-001
110-220 VAC to 12 VDC Adaptor	110-00005-001
Belt Strap	011-00019-001
Rubber Holster	011-00020-001
Sub-VHF portable antenna 12po. with BNC @ 6.78 MHz	111-00036-001
Coax cable 48in. UHF to BNC male RG58	037-00011-001
Adapter UHF female to UHF female	039-00027-001

ITX2 – Portable Ingress Transmitter Kit @ 27.12 MHz 150-00027-100

Includes:

ITX2 Ingress Transmitter Module @ 27.12 MHz	150-00027-001
110-220 VAC to 12 VDC Adaptor	110-00005-001
Belt Strap	011-00019-001
Rubber Holster	011-00020-001
Sub-VHF portable antenna 6.5po. with BNC @ 27.12 MHz	111-00037-001
Coax cable 48in. UHF to BNC male RG58	037-00011-001
Adapter UHF female to UHF female	039-00027-001

// Accessory Options

Vehicle Magnetic-mount Sub-VHF antenna @ 6.78 MHz 112-00001-100

Vehicle Lip-mount Sub-VHF antenna @ 6.78 MHz 112-00008-100

Vehicle Magnetic-mount Sub-VHF antenna @ 27.12 MHz 112-00010-100

Vehicle Lip-mount Sub-VHF antenna @ 27.12 MHz 112-00011-100

// Related Items

IRX1 – Ingress Receiver @ 6.78 MHz 150-00025-001

IRX1 – Ingress Receiver @ 27.12 MHz 150-00024-001

ARD4 – WiFi Autonomous Recording Device Kit 150-00020-100

ARD4/ITX2 USB interconnect cable 036-00020-001

effigis 
GEO SOLUTIONS

4101 Molson Street, Suite 400,
Montreal, QC, Canada H1Y 3L1
+1-888-495-6577
effigis.com