



Whyte

Digital innovation made easy

FIBRE IRS BROCHURE

WFTX2-G2

WFTX3-G1

WFRXVHT-G1

WFRXVH-G2

Technical Specifications (WFTX2-G2)

| | |
|----------------------------------|------------------------|
| RF Inputs | 2 x SAT |
| Input Frequency SAT | 290 ~ 2340MHz |
| RF Min / Max Input Level SAT | -60 ~ -55dBuV |
| Variable Slope Control SAT | 12 ± 1dB |
| Laser Type | FQAT CDRH Class 1M |
| Critical Wavebands (nm) | 1495nm (V), 1510nm (H) |
| Optical Output Power (Per Laser) | 9dBm |
| DC Supply LNB Consumption | 18V 240mA |

Technical Specifications (WFTX3-G1)

| | |
|------------------------------|------------------------------|
| RF Inputs | 2 x SAT + 1 TERR |
| Input Frequency SAT | 290 ~ 2340MHz |
| RF Min / Max Input Level SAT | -47 ~ -86dBuV |
| Variable Slope Control SAT | 60 ~ 80dBuV |
| Laser Type | S ± 1dB |
| Optical Wavebands (nm) | 1530 (V), 1570 (H), 1550 (T) |
| DC Supply LNB Consumption | 18V 0 / 12V 330mA |

WFRXVHT-G1

WFRXVH-G2

Technical Specifications (WFRXVHT-G1)

| | |
|-----------------------------|---------------|
| Single Laser Input Power | 0 ~ -14dBm |
| RF Output Level TERR | 76dBuV ± 6dB |
| RF Output Level SAT | 83dBuV ± 3dB |
| Output Frequency Range TERR | 47 ~ 862MHz |
| Output Frequency Range SAT | 290 ~ 2340MHz |
| Consumption | 220mA |

Technical Specifications (WFRXVH-G2)

| | |
|----------------------------|---------------|
| Single Laser Input Power | 0 ~ -11dBm |
| RF Output Level SAT | 85dBuV ± 3dB |
| Output Frequency Range SAT | 290 ~ 2340MHz |
| Consumption | 160mA |



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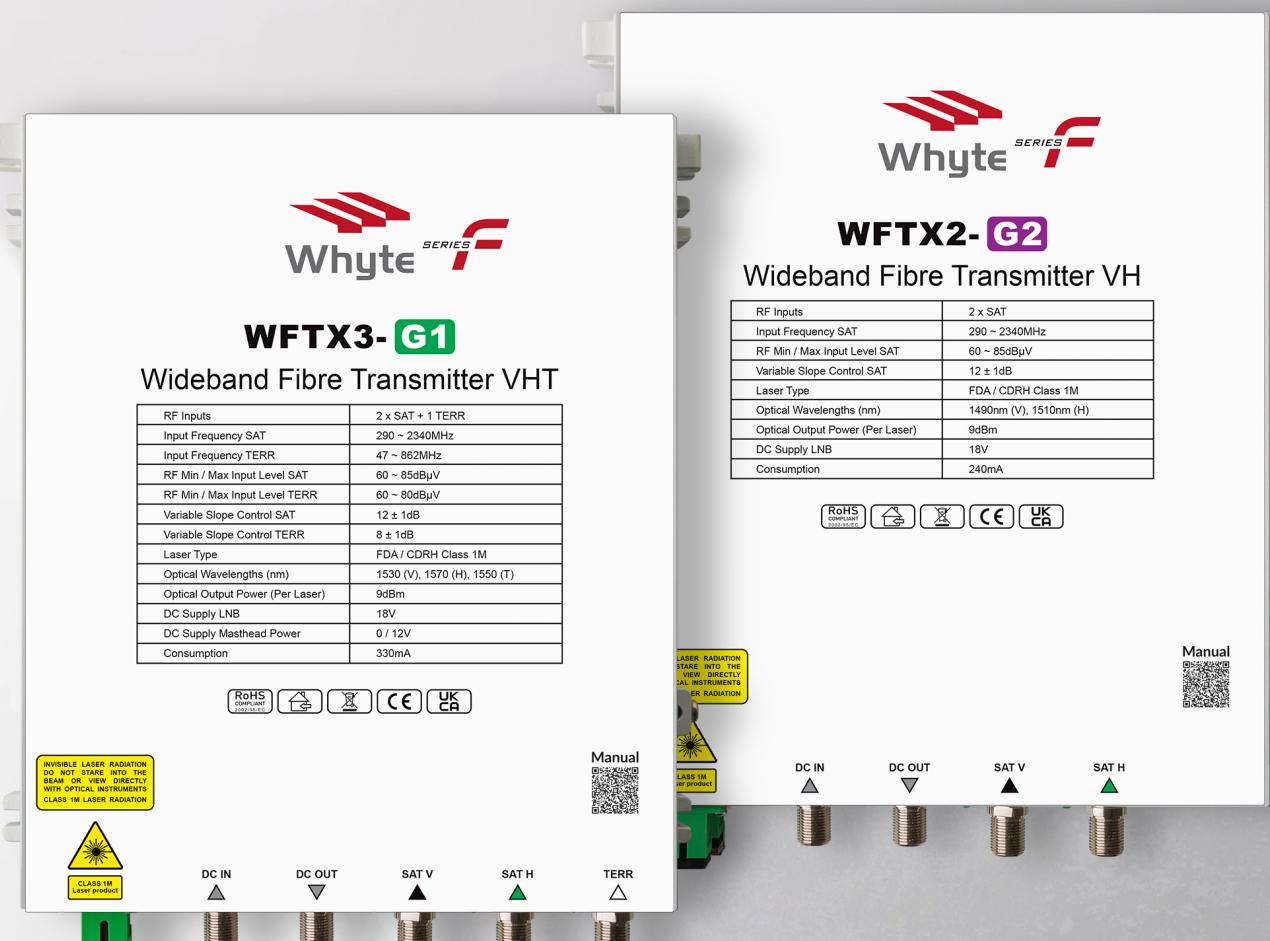


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Fibre Optic Transmitters



Fibre Optic WB Receivers

Fibre Optic dSCR Multiswitches

Fibre Optic Quattro Receivers

Series F Whyte Fibre Optic Transmitters

WFTX3-G1



- 4 Year Warranty
- RF and Laser Indicators
- Single laser per Input
- Multiple mounting options
- Wideband SAT Input
- Ultra Low MER Degradation <0.2dB
- Full band TERR Input
- Satellite and Terrestrial Optical Transmitter
- Variable Slope Control
- 9dBm Optical Power supporting 64-Way split

The Whyte WFTX range of Optical Fibre Transmitters offer an efficient quality solution for Fibre IRS systems. Whyte Optical Transmitters utilise a single laser per input which are multiplexed (CWDM) for a single optical output. This configuration ensures minimum signal degradation. The V and H SAT inputs are compatible with all Wideband LNB's and will accept any signals within the 290~2340MHz range. The TERR input 47 ~ 862MHz supports FM, DAB and DTT.

The WFTX3-G1 features DC in and DC Output, Laser On/Off switches for V, H & TERR, Variable Slope Control for V, H and TERR and Masthead Power switch for enabling/disabling 12V DC at the TERR RF input. The WFTX3-G1 is a three-laser CWDM device.

Dual wideband satellites can be supported using the loop-in loop-out function (two transmitters) WFTX3-G1 and WFTX2-G2 and their matching receivers. Each individual path is supported by Variable Slope Control (VSC) and can be adjusted to present the flattest output for your Fibre IRS system.

When combined with other products from the Whyte Series F range, large scale FTTH (Fibre To The Home), FTTC (Fibre To The Cabinet) and FTTB (Fibre To The Block) Fibre IRS systems can be successfully implemented.



| MODEL | WFTX3-G1 |
|----------------------------------|-------------------------------------|
| RF Inputs | 2x SAT + 1 TERR / 75Ω Female F-Type |
| Input Frequencies SAT | 290 ~ 2340MHz |
| Input Frequencies TERR | 47 ~ 862MHz |
| RF Input Sequence | V, H, T (left to right) |
| RF Min/Max Input Level SAT | 60 ~ 85dBµV |
| RF Min/Max Input Level TERR | 60 ~ 80dBµV |
| SAT Input Return Loss | >10dB |
| TERR Input Return Loss | >8dB |
| Variable Slope Control SAT | 0 (Flat) to 12 ±1dB |
| Variable Slope Control TERR | 0 to 8 ±1dB |
| RF Input Isolation | >30dB (port to port) |
| RF Input Status | Below Min Input LED = Off |
| Laser type | FDA/CDRH Class 1M |
| Optical Output (SC APC) | 1 |
| Optical Wavelengths | 1530nm (V), 1570nm (H), 1550nm (T) |
| Optical Output Power (Per Laser) | 9dBm |
| Optical Output On/Off | Switch (per laser) |
| Optical Output Status | LED (per laser) |
| Maximum Optical Splits | x64 |
| DC Supply LNB H & V | 18V DC |
| DC Supply Masthead Power MHP | 12V DC (switchable) |
| DC Input | 18V DC |
| DC Indicator | LED On / Off |
| DC Output (Aux) | 18V rated to 2.5A |
| Consumption | 330mA |
| Operating Temperature Range | -10 to 50°C |
| Dimensions L x W x H (mm) | 148 x 190 x 36 |
| Weight | 1130g |

Series F Whyte Fibre Optic Transmitters

WFTX2-G2



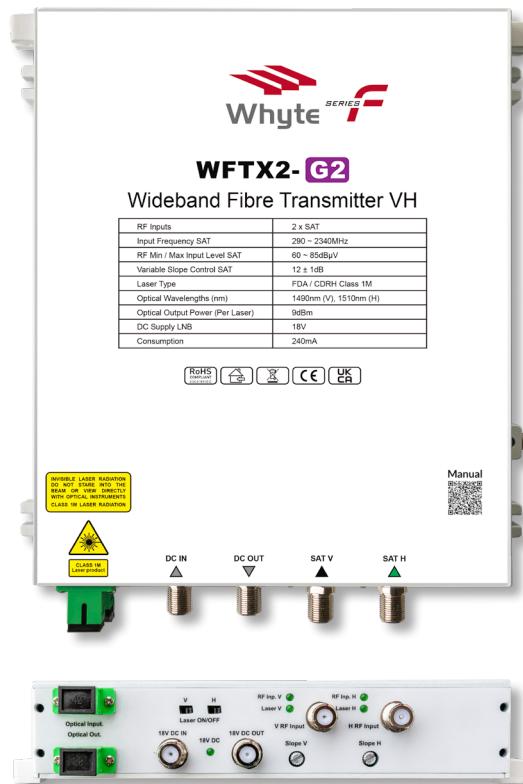
- 4 Year Warranty
- Single laser per input
- Wideband SAT Input
- Variable Slope Control
- RF and Laser Indicators
- Multiple mounting options
- Satellite Optical Transmitter
- Ultra Low MER Degradation <0.2dB
- 9dBm Optical Power supporting 64-Way split

The Whyte WFTX range of Optical Fibre Transmitters offer an efficient quality solution for Fibre IRS systems. Whyte Optical Transmitters utilise a single laser per input which are multiplexed (CWDM) for a single optical output. This configuration ensures minimum signal degradation. The V and H SAT inputs are compatible with all Wideband LNB's and will accept any signals within the 290~2340MHz range.

The WFTX2-G2 features DC in and DC Output, Laser On/Off switches for V and H, Variable Slope Control for V and H SAT Inputs. The WFTX2-G2 is a two-laser CWDM device.

Dual wideband satellites can be supported using the loop-in loop-out function (two transmitters) WFTX3-G1 and WFTX2-G2 and their matching receivers. Each individual path is supported by Variable Slope Control (VSC) and can be adjusted to present the flattest output for your Fibre IRS system.

When combined with other products from the Whyte Series F range, large scale FTTH (Fibre To The Home), FTTC (Fibre To The Cabinet) and FTTB (Fibre To The Block) Fibre IRS systems can be successfully implemented.



| MODEL | WFTX2-G2 |
|----------------------------------|-----------------------------------|
| RF Inputs | 2x SAT / 75Ω Female F-Type |
| Input Frequencies SAT | 290 ~ 2340MHz |
| RF Input Sequence | V, H (left to right) |
| RF Min/Max Input Level SAT | 60 ~ 85dB μ V |
| SAT Input Return Loss | >10dB |
| Variable Slope Control SAT | 0 (Flat) to 12 ±1dB |
| RF Input Isolation | >30dB (port to port) |
| RF Input Status | Below Min Input LED = Off |
| Laser type | FDA/CDRH Class 1M |
| Optical Input (SC APC) | 1 For optical input from WFTX3-G1 |
| Optical Output (SC APC) | 1 |
| Optical Wavelengths | 1490nm (V), 1510nm (H) |
| Optical Output Power (Per Laser) | 9dBm |
| Optical Output On/Off | Switch (per laser) |
| Optical Output Status | LED (per laser) |
| Maximum Optical Splits | x64 |
| DC Supply LNB H & V | 18V DC |
| DC Input | 18V DC |
| DC Indicator | LED On / Off |
| DC Output (Aux) | 18V rated to 2.5A |
| Consumption | 240mA |
| Operating Temperature Range | -10 to 50°C |
| Dimensions L x W x H (mm) | 148 x 190 x 36 |
| Weight | 1100g |

Series F Whyte Fibre Optic Receivers

WFRXVHT-G1 | WFRXVH-G2



- 4 Years Warranty
- Optical Input LED indicators
- Powered via the SAT Outputs
- Ultra Low MER Degradation <0.2dB
- SC APC Fibre Input / Output connector
- WB SAT V, H & TERR Output (WFRXVHT-G1)
- WB SAT V & H (WFRXVH-G2)

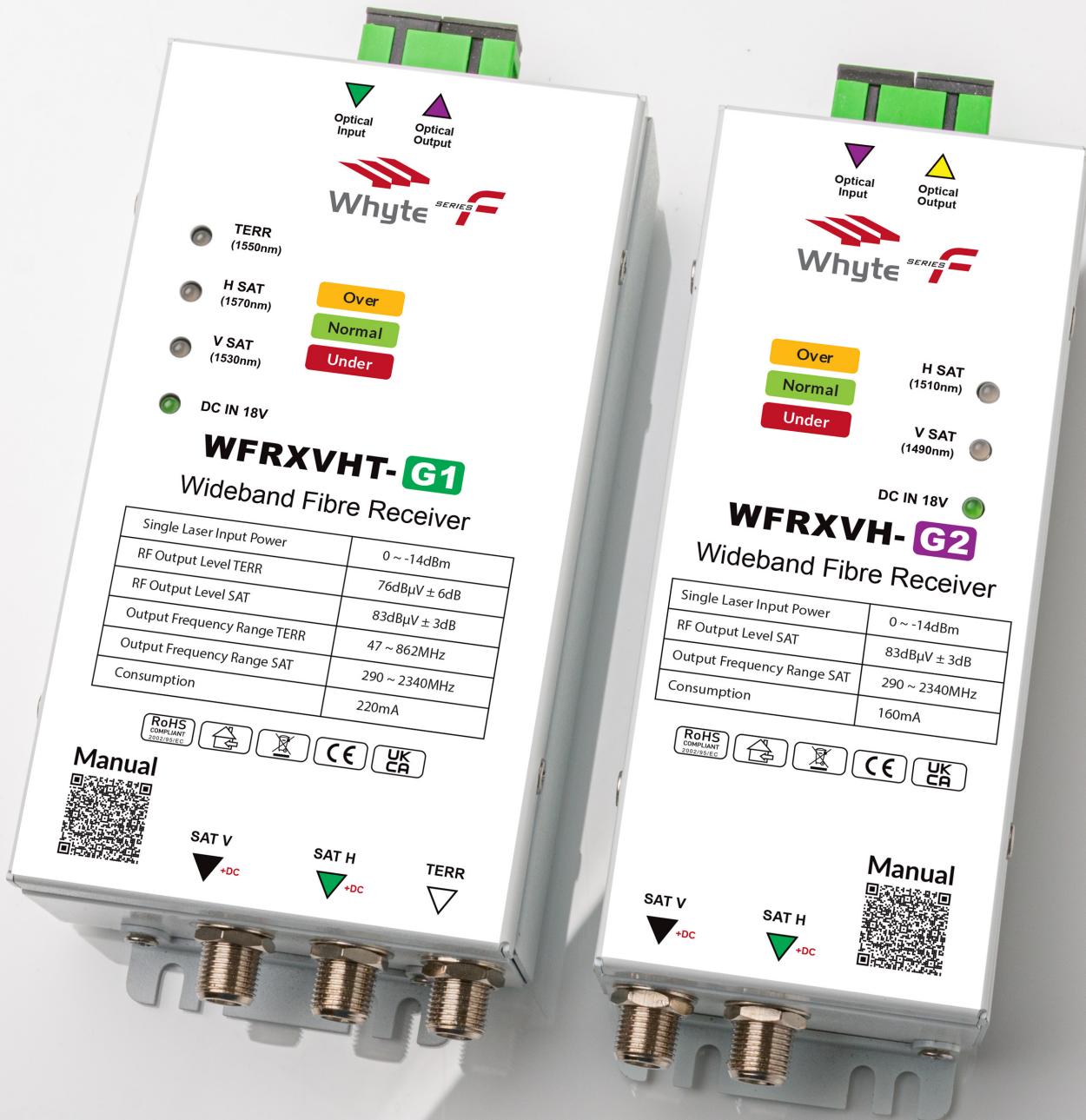
WFRXVHT-G1 and WFRXVH-G2 are Wideband Optical Receivers from the Whyte Series F Range. When used with a Whyte Fibre Optic Transmitter, signal degradation between the RF source (the LNB) and the Wideband Optical Receiver is a mere 0.2dB MER. A Tri-colour LED indicator per laser wavelength indicates the optical input status of the receiver.

The Whyte Series F wideband receivers connect directly to all Whyte Series D dSCR Multiswitches and Series 5WB Amplifiers, Taps and Splitters providing a convenient, compact, and robust solution. These wideband fibre receivers are line powered via the SAT outputs.

The WFRXVHT-G1 and WFRXVH-G2 receivers can be linked together (loop-through) enabling two satellites (Wideband) and terrestrial to be received over one fibre using five laser wavelengths. This configuration requires two Whyte Fibre Optic Transmitters that are also interconnected via the Optical Loop-through.



| MODEL | WFRXVHT-G1 | WFRXVH-G2 |
|--------------------------------|-------------------------------|--------------------------|
| Optical Input/Output | SC APC | SC APC |
| RF Outputs | 3 (V & H Wideband SAT + TERR) | 2 (V & H Wideband SAT) |
| Optical Wavelengths | 1530nm - 1550nm - 1570nm | 1490nm - 1510nm |
| Frequency Range | 47 - 862MHz / 290 - 2340MHz | 290 - 2340MHz |
| Optical Input Level | 0 ~ -14dBm | 0 ~ -14dBm |
| Optical Input Levels LED | Low, Nominal and High | Low, Nominal and High |
| RF Output Level TERR | 76dB μ V ±6dB | - |
| RF Output Level Wideband SAT | 83dB μ V ±3dB | 83dB μ V ±3dB |
| RF Return Loss | >10dB | >10dB |
| RF Output Connector Type | 75Ω F Type (Female) | 75Ω F Type (Female) |
| Power Indicator | Green LED | Green LED |
| DC Supply | Via SAT Outputs (18V DC) | Via SAT Outputs (18V DC) |
| Power Consumption Max @ 18V DC | 220mA | 160mA |
| Dimensions L x W x H (mm) | 140 x 72 x 38 | 140 x 60 x 38 |
| Weight | 354g | 236g |

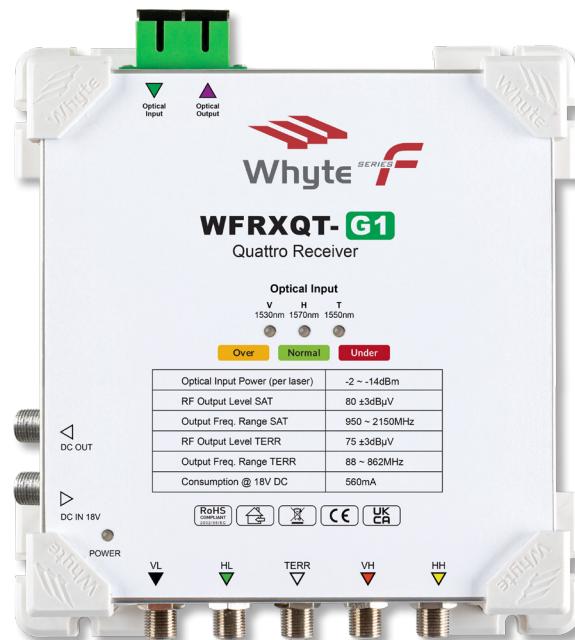


Series F Whyte Fibre Optic Quattro Receiver

WFRXQT-G1



- 4 Year Warranty
- Powered via SAT Output or DC Input
- Tri-Colour optical input state LED indicators
- RF Output SAT 80dB μ V TERR 70dB μ V
- SC APC Fibre Input / Output connectors
- Quattro RF output VL – HL – TERR – VH – HH
- Single laser per path technology for lowest signal degradation
- Easy interfacing to Whyte Series 5, 5WB and D for local RF groups



The WFRXQT-G1 is an Optical Quattro Receiver providing VL, HL, TERR, VH and HH outputs which can be directly connected to Whyte dSCRs, Amplifiers, Taps, Splitters, and Legacy Multiswitches with the supplied push fit couplers.

The Whyte Fibre Quattro receiver is ideal for Fibre to the riser scenarios where local RF groups of IRS system hardware provide signals to the apartment. The fibre backbone connectivity makes system planning easier and more convenient for your major installation projects, negating the problems of coaxial loss over great distances.

Powering options include DC Input or Trunk power. The optical loop through enables the reception of a second satellite with an additional group 2 (G2) fibre transmitter and matching receiver. Super Hybrid systems in combinations of Wideband and Quattro are easily supported through selecting the Whyte fibre products to match you needs.

| MODEL | WFRXQT-G1 |
|---------------------------------|-----------------------------|
| Optical Input / Output | SC / APC |
| Optical Input Wavelengths | 1530nm - 1550nm - 1570nm |
| RF Outputs | 5 (VL, HL, TERR, VH, HH) |
| Frequency Range | 88 - 862MHz / 950 - 2150MHz |
| Optical Input Power (per laser) | -2 ~ -14dBm |
| Optical Input Power Indicator | LED Per Laser Wavelength |
| Output level SAT (AGC) | 80 ±3dB μ V |
| Output level TERR (AGC) | 75 ±3dB μ V |
| Return loss | >10dB |
| RF Output Connector Type | 75Ω F type (Female) |
| Power Consumption Max @18V DC | 560mA |
| Powering 18V DC | Via DC In or SAT RF Outputs |
| Power Indicator | Green LED |
| Dimensions L x W x H (mm) | 168 x 158 x 43 |
| Weight | 492g |

Series F Whyte Fibre Optic dSCR Multiswitches

WFDSCR2-G1 & WFDSCR4-G1



- 4 Year Warranty
- DC Input / Output
- Tri-Colour optical input state LED indicators
- dSCR / Legacy Output SAT 85dB μ V TERR 75dB μ V
- 2-Way and 4-Way models
- Separate TERR only Output 78 ±1dB μ V
- SC APC Fibre Input / Output connectors
- Single laser per path technology for lowest signal degradation



The optical dSCR multiswitch range from Whyte provides access to Sky Q, Legacy, TV and Radio services. The dedicated TERR Output can be amplified and/or split to provide additional TERR sources to bedrooms. Designed for use with the Whyte Fibre Optic product range these are typically used as home terminal units within a fibre to the home (FTTH) IRS system.

Whyte optical dSCRs feature a DC Output for powering additional devices in the apartment. Ideal for the Whyte Advanced Distribution Amplifier (ADA) providing cost effective additional Terrestrial outlets in the apartment.

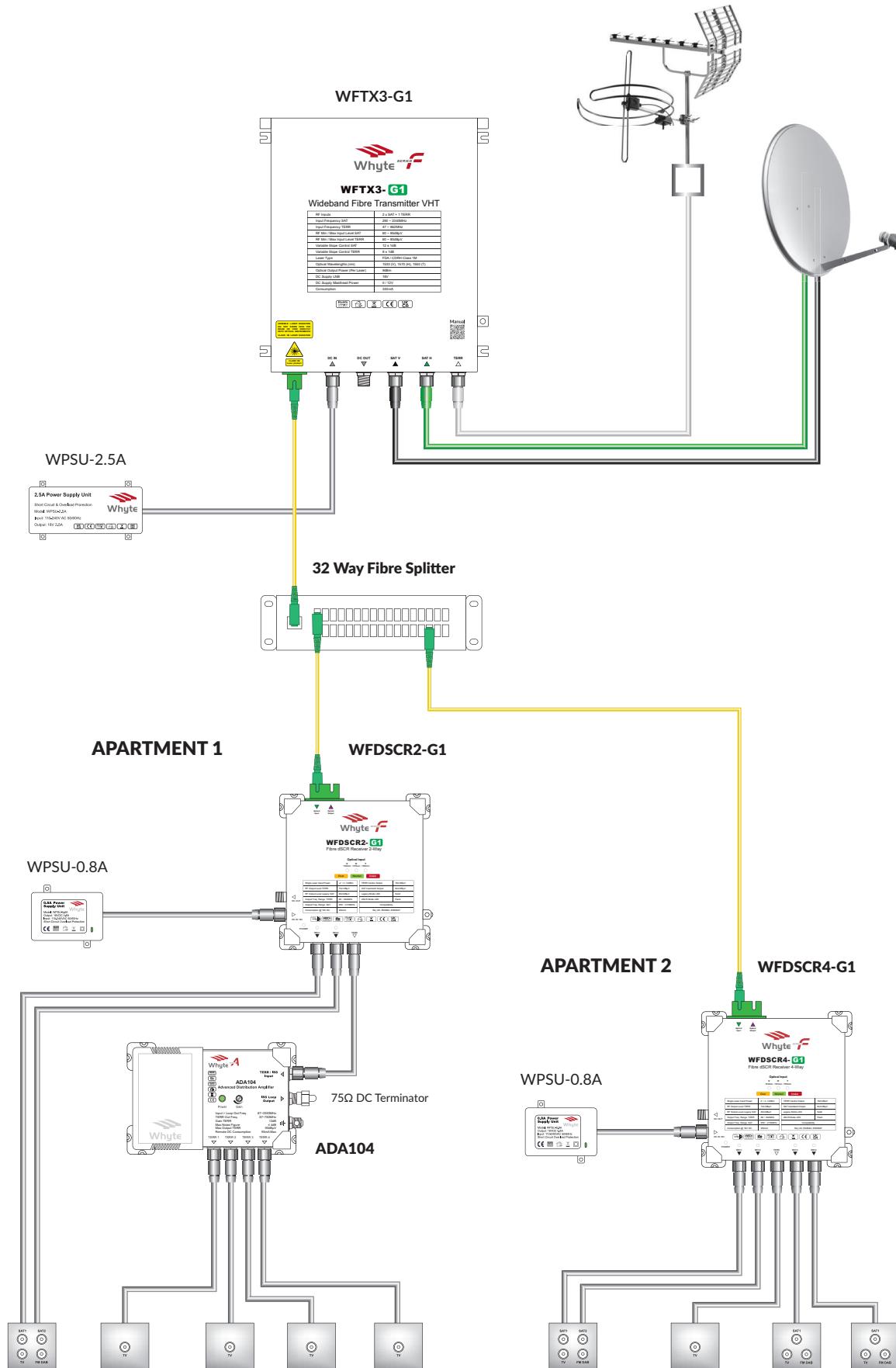
For maximum flexibility these fibre dSCR receivers feature an optical loop-through so that Group 2 (G2) receivers can be connected enabling dual satellite reception.



| MODEL | WFDSCR2-G1 | WFDSCR4-G1 |
|---------------------------------|--|--|
| Optical Input/Output | SC / APC | SC / APC |
| RF Outputs | 3 (2x dSCR / Legacy / TERR + 1x TERR) | 5 (4x dSCR / Legacy / TERR + 1x TERR) |
| Optical Input Wavelengths | 1530nm - 1550nm - 1570nm | 1530nm ~ 1550nm ~ 1570nm |
| RF Frequency Range | 88 - 862MHz / 950 - 2150MHz | 88 - 862MHz / 950 - 2150MHz |
| Optical Input Power (per laser) | -2 ~ -14dBm | -2 ~ -14dBm |
| Optical Input Power Indicator | LED Per Laser Wavelength | LED Per Laser Wavelength |
| RF Output dSCR / Legacy / TERR | 84 ±1dB μ V / 80 ±3dB μ V / 74 ±1B μ V | 84 ±1dB μ V / 80 ±3dB μ V / 74 ±1B μ V |
| RF TERR Only Output | 78±1dB μ V | 78±1dB μ V |
| dCSS / dSCR Userbands | 2 x 16 | 4 x 16 |
| Legacy Mode LED | Solid Green | Solid Green |
| dSCR Mode LED | Flashing Green | Flashing Green |
| Return loss | >10dB | >10dB |
| RF Output Connector Type | 75Ω F type (Female) | 75Ω F type (Female) |
| Switching Commands | 13/18V / 22kHz / DiSEqC | 13/18V / 22kHz / DiSEqC |
| Compatibility | Sky UK - EN50494 - EN50607 | Sky UK - EN50494 - EN50607 |
| Power Consumption Max @18V DC | 240mA | 260mA |
| Power Indicator | Green LED | Green LED |
| Dimensions L x W x H (mm) | 168 x 158 x 43 | 168 x 158 x 43 |
| Weight | 480g | 492g |

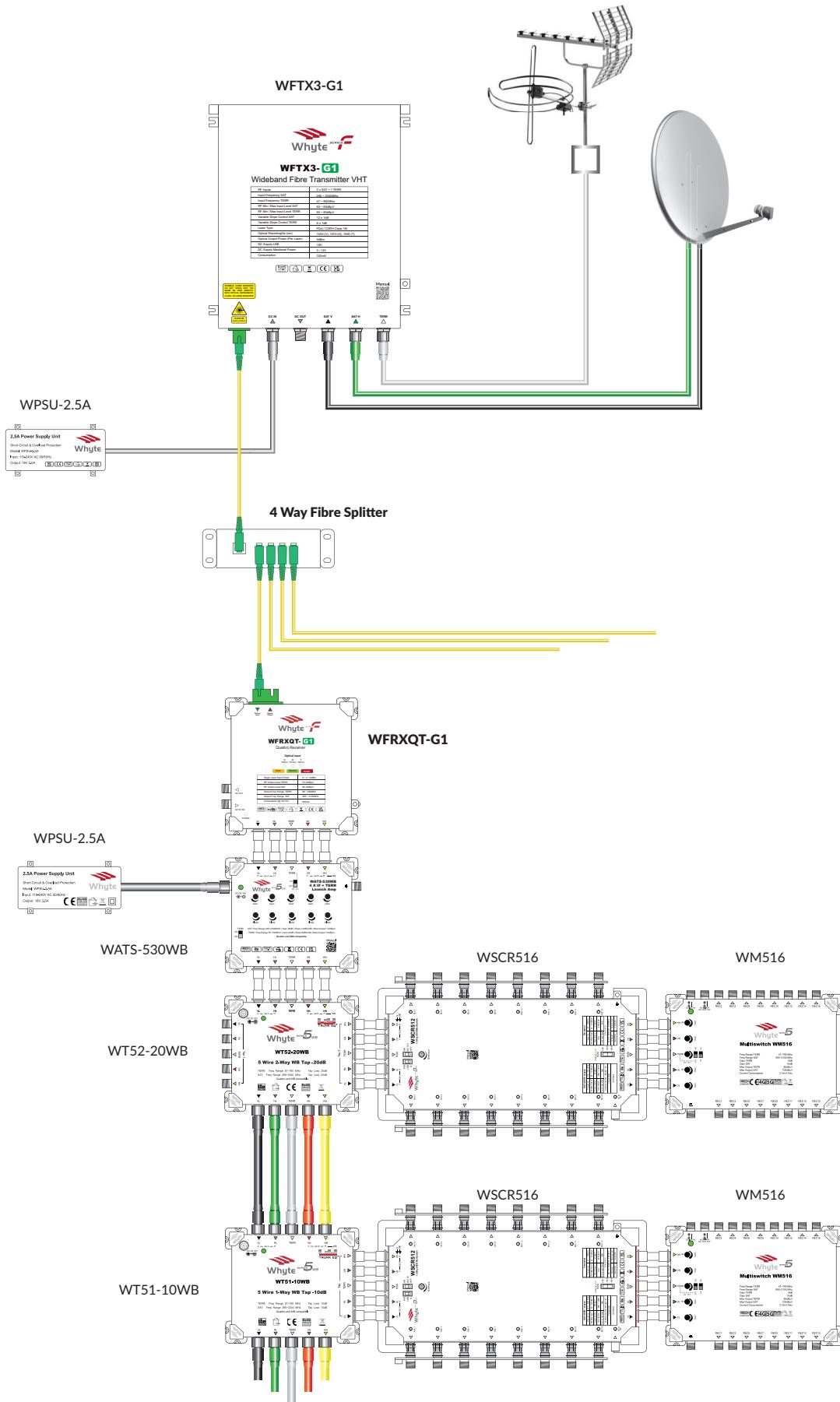
Series F Configuration Example

FTTH - FIBRE IRS TO THE HOME



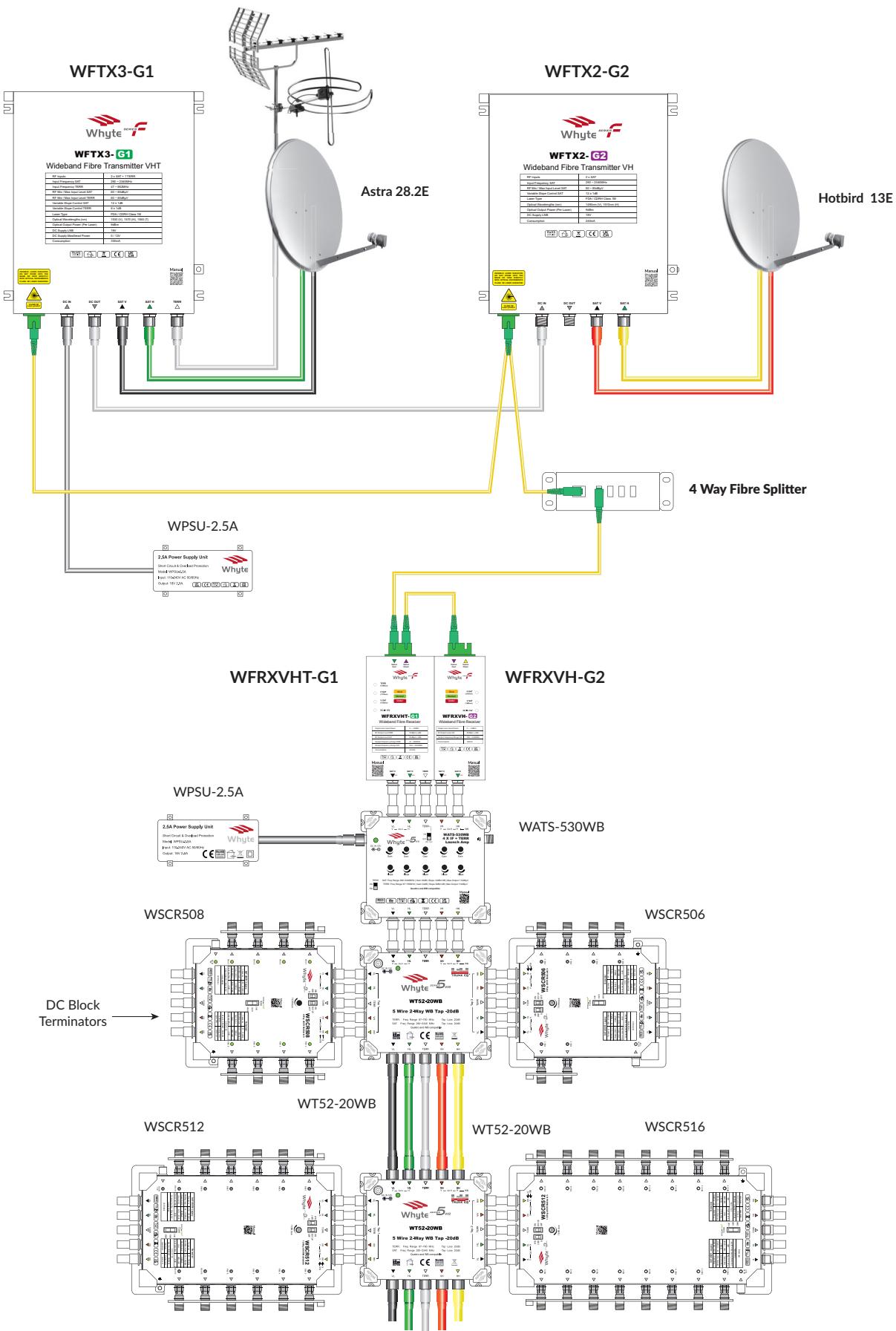
Series F Configuration Example

FTTB – HYBRID FIBRE IRS



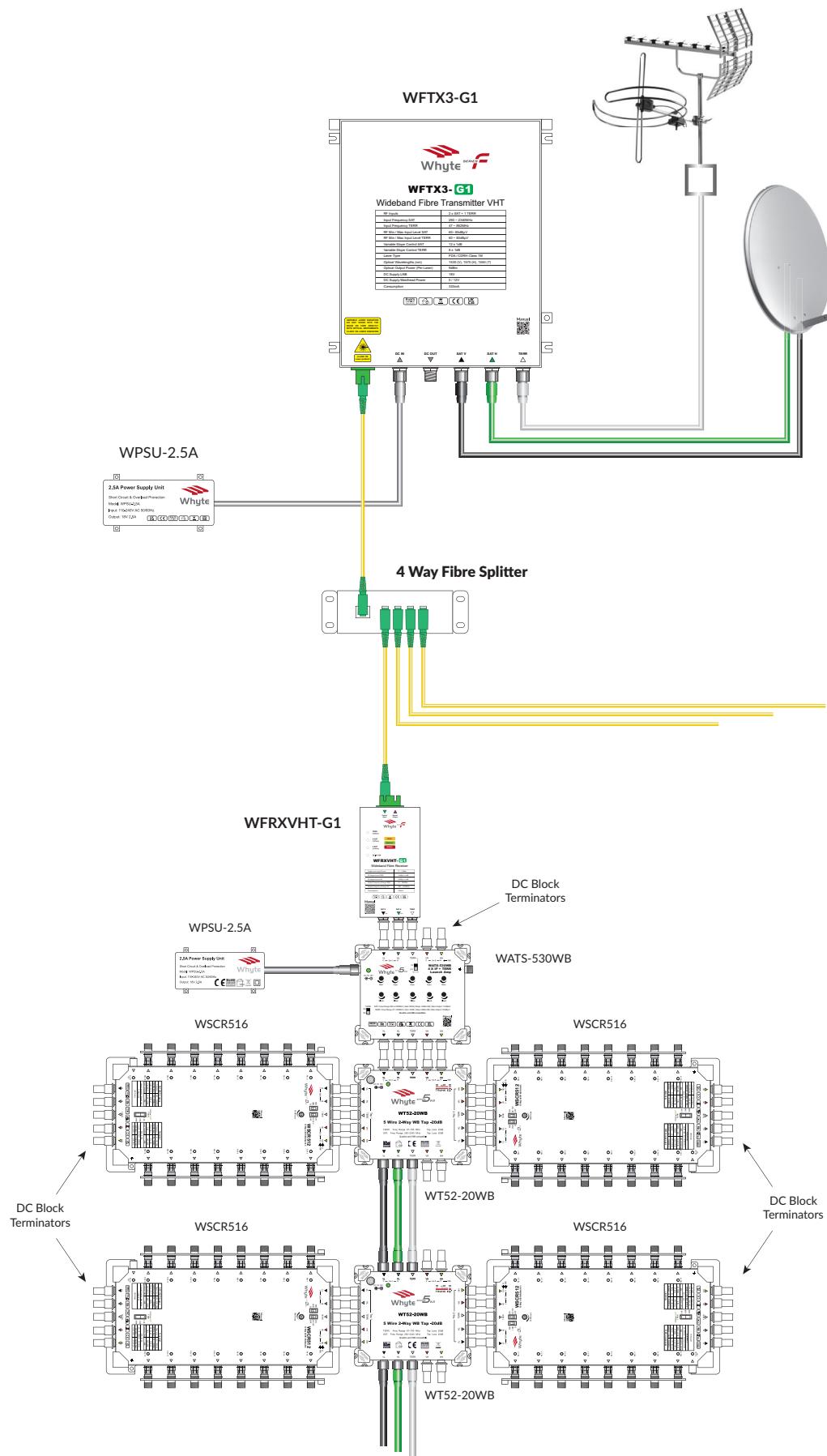
Series F Configuration Example

FTTB – DUAL SAT + TERR FIBRE IRS TO THE BLOCK



Series F Configuration Example

FTTB – WIDEBAND SAT + TERR IRS



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