



1:1 System

Transmit/Receive Redundancy Control Unit

Redundancy control unit enables redundancy configuration for Agilis medium/low power BUC and LNB, protect against single failure of critical part. Automatic switch over to hot-standby unit upon detection of fault on online unit.

Agilis high power (80W & above) BUCs equipped with built-in redundancy feature. Simple and seamless 1:1 redundancy setup. Built in redundancy-ready easily configured without need of external controller. Hot-standby BUC will take over automatically upon failure of online BUC.

Indoor rackmount version of RCU available.

Features

- Support C/X/Ku/Ka-band BUC/LNB
- Redundancy power supply input
- Redundancy 10MHz OCXO (option)
- LED status and alarm indicator
- Monitoring and Control through serial and Ethernet ports
- Form C contact closure outputs
- Wide operating temperature -40°C to +60°C for outdoor model
- IP65 Weatherproof
- RoHS Compliant

Quality Assurance

100% thorough stringent quality checks in addition to well-defined Environmental Stress Screening to ensure operation in harsh outdoor environment conditions. All subjected to seal test for water ingress verification.

Reliability

Field proven under harsh environment conditions.

Agilis ODUs can withstand temperature ranging from -40°C to +60°C under 100% humidity.

Agilis IDUs can withstand temperature from 0°C to +50°C under 95% humidity.

1:1 System

Transmit/Receive
Redundancy Control Unit



Technical Specifications

Transmit (RCU-T)

BUC	Input Frequency	Output Frequency
L-Band	950 – 2150MHz	950 – 2150MHz
Insertion Loss	6dB max	
Gain Flatness	2dB max (950 – 1825MHz)	
	3dB max (950 – 2150MHz)	
	0.5dB max over 40MHz	
Isolation (Unit-A to Unit-B)	18dB min	
10MHz Ref (option)	0dBm min	
Voltage/Current to BUC	48Vdc / 4A max	
	24Vdc / 8A max (option)	
VSWR	1.5:1 max @input	
	1.5:1 max @output	

Receive (RCU-R)

LNB	Frequency	Output Frequency
L-Band	950 – 2150MHz	950 – 2150MHz
Insertion Loss	3dB max	
Gain Flatness	1.5dB max full band	
	0.5dB max over 40MHz	
Isolation (Unit-A to Unit-B)	30dB min	
10MHz Ref (option)	0dBm min	
22KHz Tone (option)	-12dBm min	
Voltage/Current to LNB	14~16Vdc / 0.5A max	
	13V / 18V / 0V (optional)	
VSWR	1.5:1 max @input	
	1.5:1 max @output	

Interface

Input / Output N-Type Female 50Ω

Product Selection

Configuration	Application	BUC Output	Setup Diagram
Transmit 1:1 System Configuration 1	BUC (C / X / Ku / Ka band)	10W & below, IFL	Diagram 1
Transmit 1:1 System Configuration 2		12W – 60W	Diagram 2
Transmit 1:1 System Configuration 3		80W & above	Diagram 3
Receive 1:1 System	LNB (C / X / Ku / Ka band)	N.A.	Diagram 4

Monitor & Control

Monitor	BUC/LNB status alarm RCU Power Supply alarms
Control	Gain adjustable (option) Unit online/offline
Communication Port	Serial RS232/RS485 Ethernet (SNMP & HTTP)

Environmental

Operating Temperature	-40°C to +60°C (Outdoor) 0°C to +50°C (Indoor)
Relative Humidity	Up to 100% (Outdoor) Up to 95% (Indoor)
Weatherproof	IP65 (Outdoor)

Mechanical

Dimension (excluding interface connectors)	L290 x W215 x H90mm (Outdoor RCU) L11.4" x W8.5" x H3.5"
	L480 x W330 x H44mm (Indoor RCU) L18.9" x W13.0" x H1.7"
Weight	4Kg / 8.81lbs (Outdoor RCU)
	3.5Kg / 7.7lbs (Indoor RCU)

NOTE: All specifications subject to change without notice
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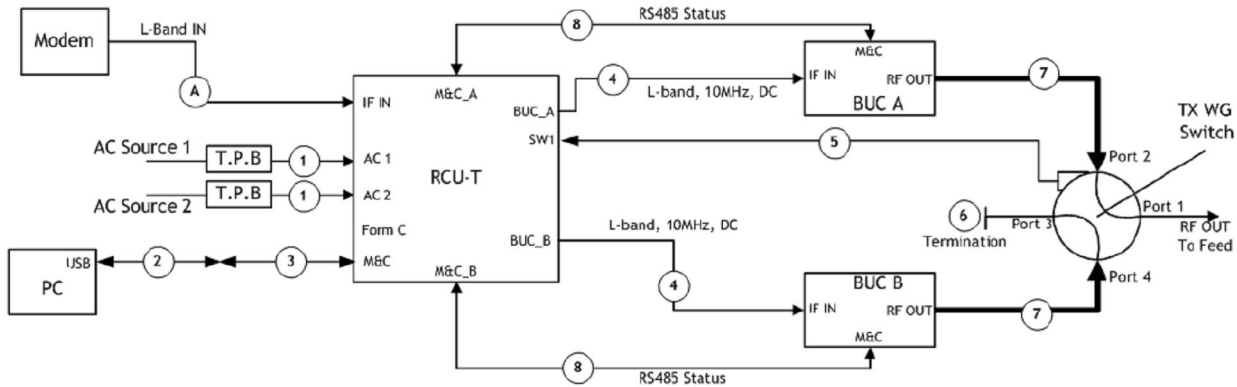
1:1 System

Transmit/Receive Redundancy Control Unit

Standard Part List for Transmit 1:1 System Configuration 1, BUC (10W & below, IFL)

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	RCU	Transmit		01	Redundancy Control Unit
2	BUC	10W & below		02	BUC Output Power 10W & Below
3	Prime Power Input Cable	220Vac	1001520980	02	Transient Protection Box 12-3S to Unterminated 220Vac 5A 3M
4	Cable M&C	Serial/ETH	2502041169	01	C/A M&C Serial/ETH 12-8P to DB9 (F) 2M
5	Cable M&C	ETH	2502041166	01	C/A M&C ETH-DB9 (M) to RJ45 2M
6	Converter	RS485	6103480008	01	Converter USB to RS485
7	Cable Control		2502040155	01	C/A Switch RCU Control 10-6S to 10-6P 3M
8	Cable Control		2502040561	02	C/A Straight 12-8S to 12-8P 2M
9	Cable RF		2502040137	02	C/A RF N (M) to N (M) 3M
10	WG S/W & Accessory Set			01	Wave guide switch and accessories including E-bend/H-bend and termination load
11	Mounting Accessory Set			01	Mounting accessories including brackets, screws, studs, gasket for flange WR137

Setup Diagram 1 - Transmit 1:1 System Configuration 1, BUC (10W & below, IFL)



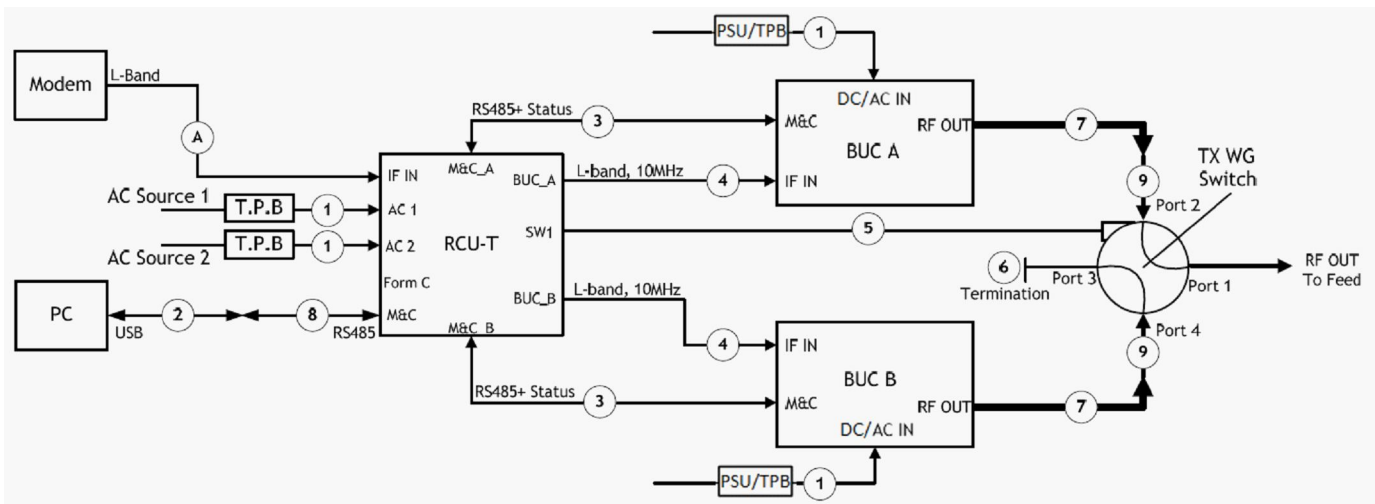
1:1 System

Transmit/Receive Redundancy Control Unit

Standard Part List for Transmit 1:1 System Configuration 2, BUC (12W – 60W)

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	RCU	Transmit		01	Redundancy Control Unit
2	BUC	12W – 60W		02	BUC Output Power 12W – 60W
3	Prime Power Input Cable	220Vac	1001520980	02	Transient Protection Box 12-3S to Unterminated 220Vac 5A 3M
4	Cable M&C	Serial/ETH	2502041169	01	C/A M&C Serial/ETH 12-8P to DB9 (F) 2M
5	Cable M&C	ETH	2502041166	01	C/A M&C ETH-DB9 (M) to RJ45 2M
6	Converter	RS485	6103480008	01	Converter USB to RS485
7	Cable Control		2502040155	01	C/A Switch RCU Control 10-6S to 10-6P 3M
8	Cable Control		2502040561	02	C/A Straight 12-8S to 12-8P 2M
9	Cable RF		2502040137	02	C/A RF N (M) to N (M) 3M
10	PSU (for BUC DC model)	Outdoor	APSVAC48-350	02	APS PSU 350W 100–240VAC TO 48VDC
11	TPB (for BUC AC model)		1001520980	02	Transient Protection Box 12-3S to Unterminated 220Vac 5A 3M
12	WG S/W & Accessory Set			01	Wave guide switch and accessories including E-bend/H-bend and termination load
13	Mounting Accessory Set			01	Mounting accessories including brackets, screws, studs, gasket for flange WR137

Setup Diagram 2 - Transmit 1:1 System Configuration 2, BUC (12W – 60W)



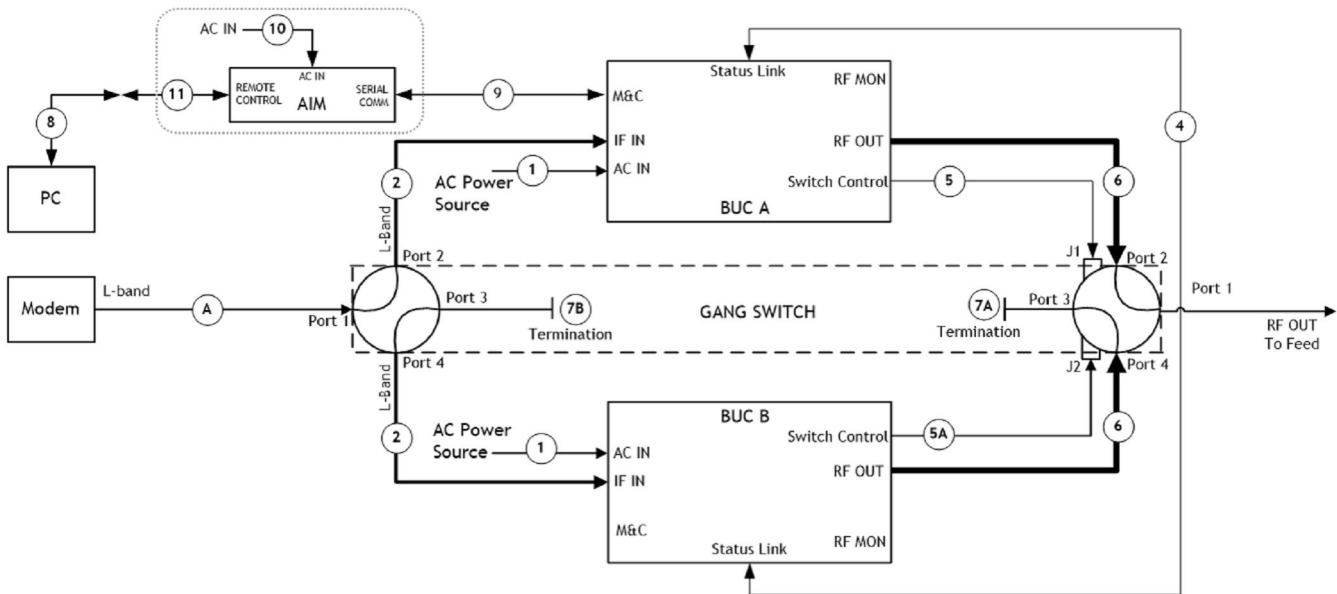
1:1 System

Transmit/Receive Redundancy Control Unit

Standard Part List for Transmit 1:1 System Configuration 3, BUC (80W & above)

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	BUC	80W & above		02	BUC Output Power Above 80W
2	Prime Power Input Cable	220Vac	1001520980	02	Transient Protection Box 12-3S to Underterminated 220Vac 5A 3M
3	Cable M&C	Serial/ETH	2502041256	02	C/A S/P M&C CIR 14-19P TO DB9 ETH/485
4	Cable M&C	ETH	2502041166	01	C/A M&C ETH-DB9 (M) to RJ45 2M
5	Converter	RS485	6103480008	01	Converter USB to RS485
6	Cable Control		2502040155	01	C/A Switch RCU Control 10-6S to 10-6P 3M
7	Cable Control		2502041006	01	C/A FOR TXSW
8	Cable RF		2502040137	02	C/A RF N (M) to N (M) 3M
9	AIM (Optional)	Indoor		01	Agilis Indoor Monitoring Panel
10	WG S/W & Accessory Set			01	Wave guide Gang switch and accessories including E-bend/H-bend and termination load
11	Mounting Accessory Set			01	Mounting accessories including brackets, screws, studs, gasket for flange WR137

Setup Diagram 3 - Transmit 1:1 System Configuration 3, BUC (80W & above)



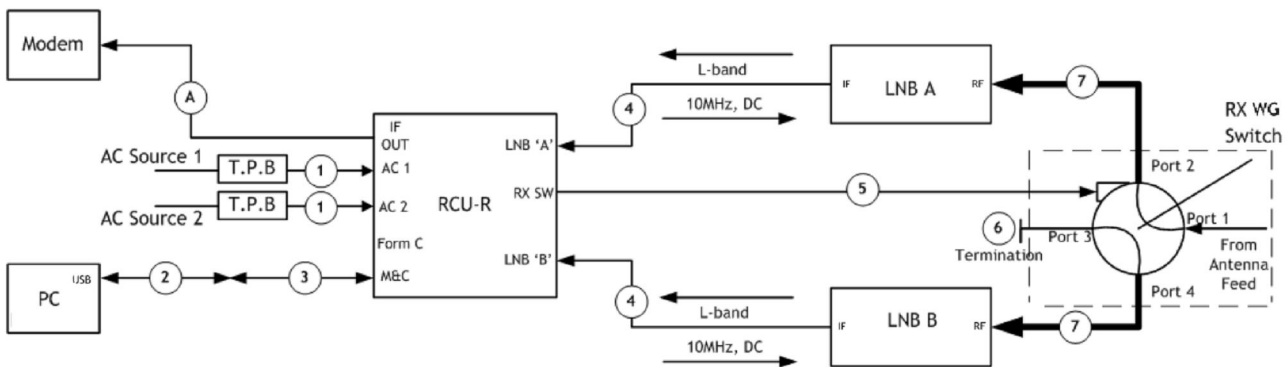
1:1 System

Transmit/Receive Redundancy Control Unit

Standard Part List for Receive 1:1 System, LNB

ITEM	PRODUCT NAME	OPTION	PART NUMBER	QTY	DESCRIPTION
1	RCU	Receive		01	Redundancy Control Unit
2	LNB			02	LNB
3	Prime Power Input Cable	220Vac	1001520980	02	Transient Protection Box 12-3S to Unterminated 220Vac 5A 3M
4	Cable M&C	Serial/ETH	2502041169	01	C/A M&C Serial/ETH 12-8P to DB9 (F) 2M
5	Cable M&C	ETH	2502041166	01	C/A M&C ETH-DB9 (M) to RJ45 2M
6	Converter	RS485	6103480008	01	Converter USB to RS485
7	Cable Control		2502040155	01	C/A Switch RCU Control 10-6S to 10-6P 3M
8	Cable RF		2502040137	02	C/A RF N (M) to N (M) 3M
9	WG S/W & Accessory Set			01	Wave guide switch and accessories including E-bend/H-bend and termination load
10	Mounting Accessory Set			01	Mounting accessories including brackets, screws, studs, gasket for flange WR137

Setup Diagram 4 - Receive 1:1 System, LNB

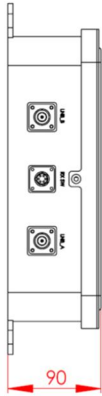


1:1 System

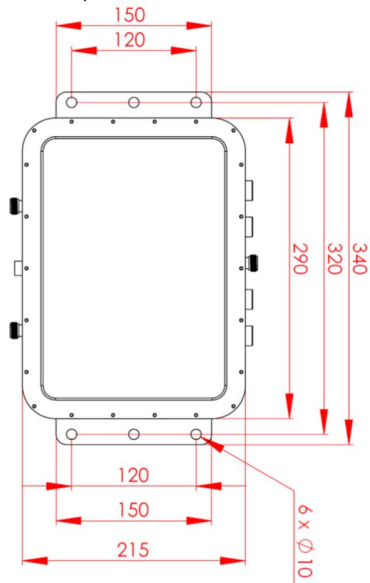
Transmit/Receive Redundancy Control Unit

Mounting Dimension Drawing

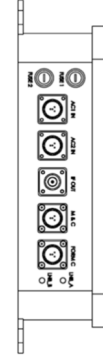
Side View – Outdoor RCU Unit



Top View – Outdoor RCU Unit

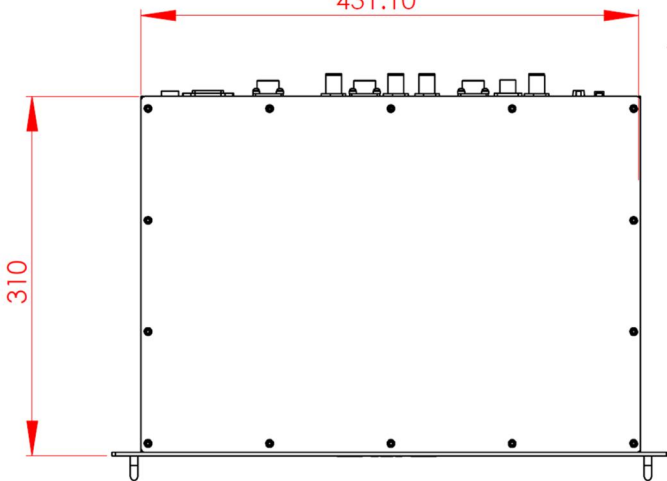


Side View – Outdoor RCU Unit

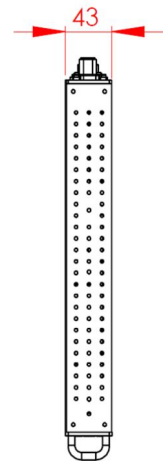


Top View – Indoor RCU Unit

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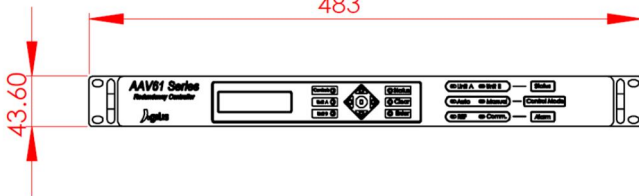


Side View – Indoor RCU Unit



Front View – Indoor RCU Unit

483



Rear View – Indoor RCU Unit



NOTE: Part list and drawing subject to change without notice

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