

MICROSAT

WX3in1 Plus 2.0

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Digipeater

Beacons

Network

APRS-IS gateway

RTC/NTP time

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Firmware version:
v1.09/28.02.2016

Radio configuration

Callsign: YO6NAM - 10

Latitude: 4538.15N

Longitude: 02535.84E

Baudrate: 1200 / AFSK

TX delay (ms): 250

Quiet time (ms): 200

Randomize quiet time: +/- 64 ms

PTT: separate output

Squelch level: 1 (lowest)

Channel busy detect: digital detect

Consecutive packets send: separately

Input amplifier: +0 db

Output level: 400 mV/500 Ohm

Save and reboot

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Digipeater configuration

 Digipeater on:

 Duplicate checking (s):

New-N Paradigm PATH filter rules

Path (n-N):	$n \geq n \leq$	Traceable:	Enable if:	Direct only:	Area ALL:	Area RADO:	Area RAD1:	Area RECTO:
WIDE	1	1	Yes	Always	No	Yes	No	No
RO	1	7	No	Always	No	Yes	No	No
	1	7	No	Never	No	Yes	No	No
	1	7	No	Never	No	Yes	No	No
	1	7	No	Never	No	Yes	No	No
	1	7	No	Never	No	Yes	No	No
	1	7	No	Never	No	Yes	No	No
	1	7	No	Never	No	Yes	No	No
	1	7	No	Never	No	Yes	No	No

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PATH filter areas:

area ALL - all stations within unlimited range.

area RADO - all stations within a range of kilometers from our station.

area RAD1 - all stations within a range of kilometers from point:

latitude, longitude.

area RECTO - stations in a rectangle defined by points:

latitude, longitude (north-western point),

latitude, longitude (south-eastern point).

CALLSIGN filter rules:

General rule:

Callsign: SSID:

<input type="text"/>	*
----------------------	---

<input type="text"/>	*
----------------------	---

<input type="text"/>	*
----------------------	---

<input type="text"/>	*
----------------------	---

<input type="text"/>	*
----------------------	---

<input type="text"/>	*
----------------------	---

<input type="text"/>	*
----------------------	---

<input type="text"/>	*
----------------------	---

<input type="text"/>	*
----------------------	---

<input type="text"/>	*
----------------------	---

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Beacons configuration

Dest: Path: RF[min]: IS[min]: Enable if:

Settings: APMI06 - 0 [] - 0 [] 10 [] 10 [] Always []

Message: |<lat>/<long>& I-Gate / Repetor DMR Vf. Tampa U=<volt>V,T=<temp>

Dest: Path: RF[min]: IS[min]: Enable if:

Settings: APMI06 - 0 [] - 0 [] 12 [] 12 [] Always []

Message: >145.725MHz T077 -060 www.xpander.ro

Dest: Path: RF[min]: IS[min]: Enable if:

Settings: APMI06 - 0 [] - 0 [] 0 [] 0 [] Never []

Message:

Dest: Path: RF[min]: IS[min]: Enable if:

Settings: APMI06 - 0 [] - 0 [] 0 [] 0 [] Never []

Message:

Dest: Path: RF[min]: IS[min]: Enable if:

Settings: APMI06 - 0 [] - 0 [] 0 [] 0 [] Never []

Message:

Dest: Path: RF[min]: IS[min]: Enable if:

Settings: APMI06 - 0 [] - 0 [] 0 [] 0 [] Never []

Message:

Dest: Path: RF[min]: IS[min]: Enable if:

Settings: APMI06 - 0 [] - 0 [] 0 [] 0 [] Never []

Message:

Dest: Path: RF[min]: IS[min]: Enable if:

Settings: APMI06 - 0 [] - 0 [] 0 [] 0 [] Never []

Message:

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Network settings

Device MAC address:

Network configuration

IP configuration method: Static IP

Static IP settings

IP address 192 168 2 23

IP mask 255 255 255 0

Gateway IP 192 168 2 1

DNS IP 192 168 2 1

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APRS-IS settings**Server settings:**Username: Password: **APRS-IS servers:**

Server 1	<input type="text" value="romania.aprs2.net"/>	:	<input type="text" value="14580"/>
Server 2	<input type="text" value="europe.aprs2.net"/>	:	<input type="text" value="14580"/>
Server 3	<input type="text"/>	:	<input type="text" value="14580"/>

Inactivity reconnect timeout [m]: **APRS-IS server filter settings:**Please refer to filter settings description at: <http://www.aprs-is.net/javAPRSFilter.aspx>**Common settings:**APRS-IS heard buffer timeout [m]: APRS-IS to RF dest: - **RF -> APRS-IS:**Gate RF packets to APRS-IS: **APRS-IS -> RF (messages):**Gate messages to local RF: Message path: - Local RF heard max. digi-hops: Local RF heard buffer timeout [m]: **APRS-IS -> RF (non-messages):**Gate non-message packets to RF: Non-message path: - Gate if source station heard via RF: RF heard buffer timeout [m]: Max. packets per 1 min: Max. packets per 2 min: Max. packets per 3 min:

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Time configuration

Year:

Month:

Day:

Hour:

Min:

Use NTP server Yes

NTP server:

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Remote access

WWW

WWW user:

WWW password:

WWW port:

Telnet

Telnet user:

Telnet password:

Telnet port:

Telnet debug messages

APRS-IS:

APRS-IS msgs:

Telemetry:

NTP:

DNS:

RF:

AX.25:

Weather:

Weather Underground:

Digipeater:

GPS:

Thermometer:

DHCP:

KISS:

APRS-IS simple server:

KISS via TCP/IP

KISS via TCP/IP enable:

KISS via TCP/IP port:

APRS-IS simple server

APRS-IS simple server enable:

APRS-IS simple server port:

Username

Password:

Forward traffic APRS-IS simple server -> APRS-IS T2:

Forward traffic APRS-IS T2 -> APRS-IS simple server:

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Telemetry reports

Dest:	Path:	RF rate [min]:	IS rate [min]:
Telemetry params:	APM106 - 0 WIDE1 - 1 60 10		
Telemetry data:	APM106 - 0 WIDE1 - 1 10 5		
Telemetry project title:	WX3in1Plus20 Telemetry		
First telemetry data packet delay [min]:	60		
Telemetry reports:	Disabled		

Analog channels

Analogs:	Name:	Units:	Coeff A:	Coeff B:	Coeff C:	1 min avg:
1:	Vin	Volt	0	0.075	0	
	Source:	(I) Input voltage				
2:	Rx1h	Pkt	0	10	0	
	Source:	(I) RX'ed packets (1 hour)				
3:	Dg1h	Pkt	0	10	0	
	Source:	(I) DIGI'ed packets (1 hour)				
4:	Eff1h	Pcnt	0	1	0	
	Source:	(I) Decode efficiency (1 hour)				
5:	A5	None	0	0	0	
	Source:	Not used				

Digital channels

Digital:	Name:	Label:	Inverted:	Source:
1:	O1	On	No	(M) Output 1
2:	O2	On	No	(M) Output 2
3:	O3	On	No	(M) Output 3
4:	O4	On	No	(M) Output 4
5:	I1	Hi	No	(M) Input 1
6:	I2	Hi	No	(M) Input 2
7:	I3	Hi	No	(M) Input 3
8:	I4	Hi	No	(M) Input 4

WXBits default settings

Output 1 default state:	Off
Output 2 default state:	Off
Output 3 default state:	Off
Output 4 default state:	Off

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Weather configuration

Weather beacon

Dest:	APM106	-	0	Path:	WIDE2	-	2	RF rate [min]:	5	IS rate [min]:	5
Report settings:	Report comment: WX3in1 weather										

Weather Underground service

Wunderground reports	Disabled ▾
Station ID:	
Password:	
Normal upload server:	weatherstation.wunderground.com
Rapid fire upload server:	rtupdate.wunderground.com
Weather send method:	Normal ▾
Normal weather send rate [min]:	1
Rapid fire weather send rate [s]:	5

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External devices

RS-232 ports

BT/Microsat Bluetooth connected:

If you want use Bluetooth module connected to serial port, then only port 1 is operational (in Bluetooth mode) and port 2 is disabled.

RS-232 port 1:

RS-232 port 2:

Not all RS-232 port 1, port 2 settings are possible.

If WS-2300 or WS-2350 station is selected on one port, then the other port can work in RX-only mode (e.g. GPS).

RS-485 ports

WXTelemetry module (analog):

WXBits module (digital):

Thermometer port

Thermometer support

Thermometer model:

Weather station

Weather station:

Not all RS-232 port 1, port 2 settings are possible.

If WS-2300 or WS-2350 station is selected on one port, then the other port can work in RX-only mode (e.g. GPS).

GPS receiver

GPS module baudrate:

KISS

KISS baudrate:

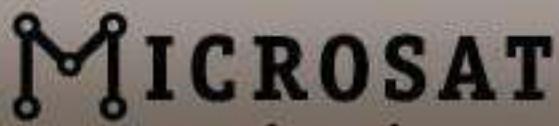
KISS direction:

Check for serial->RF packet correctness:

RSS-131 gamma monitor

RS-131 baudrate:

Units range:



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Other

Voltage measurement

Measured input voltage: 13.7V.

Voltage measurement calibration: ▾

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Input adjustment

Click [HERE](#) to open WX3in1 input signal oscilloscope.

Input amplifier (temporary adjustment):

WX3in1 Oscilloscope settings

Trigger source:

Time range [ms]:

Last 10 received packets RX level (oldest first)

51% 48% 52% 48% 53% 48% 53% 48% 52% 88%

Notes:

- only one WX3in1 Oscilloscope window can be opened at a time.
- after tuning input amplifier to suitable value you need to write it to device non-volatile memory in "Radio" Tab.

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Output adjustment

Transmit control

Global transmit disable: No

[Change settings](#)

Output level

Output level (temporary adjustment):

[Change settings](#)

Test tone settings

Test tone:

Send test tone for:

PTT during test tone:

[Send test tone](#)

Notes:

- after tuning output level to suitable value you need to write it to device non-volatile memory in "Radio" Tab.