

# OpenSpot4 and AT D878UVII Pro- SMS Configurations

Wednesday, May 7, 2025 5:17 PM

The following configuration settings are allowing the Any Tone D878-UVII and OpenSPOT 4 Pro to perform SMS Messaging as of 7 May 2025. After reviewing the outdated references for the last week, finally nailed the configuration that is allowing for pretty consistent SMS communications. Below are screenshots of exactly how I have this configured. I experienced issues when appending unique SSID to the OpenSPOT DMR ID, for it would not allow Radio to receive digital traffic. When I adjusted the configuration, everything worked as expected.

## 1. Brandmeister Configuration. Enabled as Brand: Motorola.

2.

Brandmeister SelfCare Settings

3115900 (W1JKU)

Brand: Motorola Language: English

APRS Interval: 60 sec APRS Callsign: W1JKU-9

APRS Icon: [Icon] In Call GPS: OFF APRS Text / Talker Alias: D878 trying SMS

Compact / CSBK data: OFF Text Capture: OFF (Read this before enabling)

AirSecurity / TOTP: OFF Secure Local Pass: OFF

Private Hotspot: OFF

Save Restore defaults

Hotspot Security

Enter new Password

Save Password

## 2. Configured OpenSpot4Pro to use same DMRID as Radio.

Previously I attempted to establish a unique DMR Suffix since I have multiple OpenSPOTS (OpenSPOT1 and OpenSPOT2). This prevented received of message from occurring consistently to the radio. After make the changes below, I was successful.

Be sure to use your own DMR ID and Callsign when configuring

### a. Connectors

openSPOT

StatusConnectorsModemSettingsNetwork

openspot4

Quick setup

User manual

SharkRF Link

Connectors

Active connector: Homebrew/MMDVM

Edit connector: Homebrew/MMDVM

Switch to selected

General settings

Save

Change to Null connector after last call (sec, 0 to disable): 0

Change after last call from: ☒ Modem ☐ Modem or network ☐ Power down instead of changing to Null connector

DMR/Homebrew/MMDVM

Save

Modem receive frequency (MHz): 433.400000

Modem transmit frequency (MHz): 433.400000

Modem mode: DMR

Protocol: ☒ Homebrew ☐ MMDVM

Server: United States/3102

Server address: 74.91.114.19

Port (UDP): 62030

Add serverRemove

Callsign: W1JKU

DMR ID: 3115900

URL: https://sharkrf.com/

Server password: (show) \*\*\*\*\*

BM hotspot security settings

Backup server: United States/3103

Backup server address: 74.91.118.251

Backup server port (UDP): 62030

Backup server password: (show) \*\*\*\*\*

Backup server activate connect timeout (sec): 15

Auto connect to ID (0 to disable): 0

☐ Group call ☒ Private call

☐ Unlink TG/ref. on auto connect

Auto connect TDMA channel: 0

Auto connect interval (sec): 0

DMO mode TDMA channel: 0

Route cross mode calls to ID: 4000

☒ Group call ☐ Private call

☒ Unlink TG/ref. on cross mode DTMF call

Reroute DMR TG9 calls to ID (0 to disable): 0

☒ Group call ☐ Private call

☐ Disable dynamic rerouting

Keepalive interval (sec): 5

RX timeout (sec): 30

Connect retry interval (sec): 1

Quick call

BrandMeister manager

POCSAG/DAPNET

DMR SMS chat

ID database lookup

Upgrade

b. Modem

openSPOT

StatusConnectorsModemSettingsNetwork

openspot4

Quick setup

User manual

SharkRF Link

Modem settings

Change

Active modem mode: DMR

Change to mode: DMR

Modem modes not supported by the active connector are grayed out.

Frequency

Save

Modem receive frequency (MHz): 433.400000

Modem receive frequency offset (Hz): 300

DMR color code: 1

Modem transmit frequency (MHz): 433.400000

Transmit power: 13 dBm (19.95 mW)

Quick call

BrandMeister manager

POCSAG/DAPNET

DMR SMS chat

ID database lookup

Upgrade



openSPOT::

StatusConnectorsModemSettingsNetwork

openspot4

Quick setup

User manual

SharkRF Link

Configuration profile

Change active profile

Change active profile slot:1 (Brandmeister)

Change to profile slot:

To change profiles using your radio, call these IDs:

Slot 1 ID:9001

Slot 2 ID:9002

Slot 3 ID:9003

Slot 4 ID:9004

Slot 5 ID:9005

Slot 6 ID:9006

Slot 7 ID:9007

Slot 8 ID:9008

Slot 9 ID:9009

Slot 10 ID:9010

Change profile on timeout

Change after last call (sec, 0 to disable):0

Change after last call from:ModemModem or network

Change to profile slot:

Profile names

Profile #1:Brandmeister

Profile #2:profile #2

Profile #3:profile #3

Profile #4:profile #4

Profile #5:profile #5

Profile #6:DMR-DSTAR

Profile #7:profile #7

Profile #8:profile #8

Profile #9:profile #9

Profile #10:profile #10

Copy

Source:1 (Brandmeister)

Destination:1 (Brandmeister)

Export/import file

Export allExportImport

Profile:1 (Brandmeister)

Include passwords in export

Status:Idle

Progress:

Quick call

BrandMeister manager

POCSAG/DAPNET

DMR SMS chat

ID database lookup

Upgrade

#### d. Network Settings

a.

e. DMR SMS Chat

DMR SMS chat

WX Report - Atlanta 14.16 C  
H-85% P-1020N Wind  
0.45km/h - S7deg broken clouds  
Source ID: 15333

WX Report - Atlanta 14.16 C  
H-85% P-1020N Wind  
0.45km/h - S7deg broken clouds  
Source ID: 15333

WX Report - Atlanta 15.33 C  
Source ID: 15333

Message:

Destination ID:

Send to:

Call type:

Format:

9

☒ Network ◯ Modern  
☐ Private ◯ Group  
☐ ETSI ◯ UDP ◯ UDP/Chinese ◯ Try all

Settings

Source ID:

3115900
 

☐ Handle messages to/from source ID  
☐

Send messages to source ID to  
POCSAG RIC (0 to disable)


If you want to receive messages from the network on the DMR SMS page, or forward them to POCSAG, enable Handle messages to/from source ID, so received SMS messages to the given Source ID won't be forwarded to your radio.

### 3. Radio

### a. Device Info

- i. Model: D878UVII
- ii. Firmware Version: 3.07
- iii. Hardware Version 1.10(GD)
- iv. Radio Data Version: 1.00
- v. Pic Version V1.23
- vi. Sct 3258 Version: V2.01.07BA
- vii. BT Soft Version: ET12\_AQXQ\_X\_V10043
- viii. APRS Bord Version: V200

**b. Channel**

 Channel Information Edit---1000

Channel Name

OS4 WA4EOC

Receive Frequency

433.40000

Transmit Frequency

433.40000

Correct Frequency[Hz]

0

Channel Type

D-Digital

Transmit Power

Low

Band Width

12.5K

TX Permit

Always

Scan List

None

APRS Report Type

Digital

Analog APRS PTT Mode

Off

Digital APRS PTT Mode

Off

Digital APRS Report Channel

4

Exclude channel from roaming

off

DMR MODE

DMO/simplex

Analog APRS Report Freq

1

☐ PTT Prohibit
☐ Talk Around(Simplex)
☐ APRS RX

☐ Work Alone
☐ DataACK Disable
☐ Auto Scan
☐ Ana Aprs Mute

Digital

Contact

WA4EOC 3215969

Radio ID

Rob - W1JKU

RX Color Code

1

TX Color Code

1

Slot

Slot1

Receive Group List

OS TG 9

Digital Encryption

Off

Extend Encryption

AES

ARC4 Encryption Code

Off

AES Digital Encryption

Off

Multiple Key

Off

Random Key

Off

SMS Forbid

Off

☐ Send Talker Alias
☐ Call Confirmation
☐ Ranging

☐ Slot Suit
☐ SMS Confirmation

Analog

CTCSS/DCS Decode

Off

CTCSS/DCS Encode

Off

Squelch Mode

Carrier

Optional Signal

Off

DTMF ID

1

ZTone ID

5Tone ID

PTT ID

Off

☐ Reverse

ZTONE Decode

Custom CTCSS

R5toneBot

customize

R5ToneEot

customize

OK

Cancel

Previous

Next

### c. APRS

APRS

Manual TX Interval[s]

APRS Auto TX Interval[s]

Support For Roaming

Fixed Location Beacon

Aprs Alt Data

AprsDisTime

Fix1

Latitude

North or South

Longitude

East or West Hemisphere

Digital

No.	Report Channel	Report Slot	APRS TG	Call Type
1	OS1 APRS	Channel Slot	310999	Private Call
2	OS2 APRS	Channel Slot	310999	Private Call
3	Current Channel	Channel Slot	310999	Private Call
4	OS4 APRS	Channel Slot	310999	Private Call
5	Current Channel	Channel Slot	99	Private Call
6	Current Channel	Channel Slot	262993	Private Call
7	Current Channel	Channel Slot	310999	Private Call
8	Current Channel	Channel Slot	0	Private Call

Repeater Activation Delay[ms]

Analog

Transmission Frequency1[MHz]  Transmission Frequency2[MHz]  Transmission Frequency3[MHz]

Transmission Frequency4[MHz]  Transmission Frequency5[MHz]  Transmission Frequency6[MHz]

Transmission Frequency7[MHz]  Transmission Frequency8[MHz]

PASS ALL

Analog

APRS TX Tone

TOCALL

TOCALL SSID

Your Call Sign

Your SSID

APRS Symbol Table

APRS Map Icon

Digipeater Path

Enter Your Sending Text  Ana Aprs Tx

Transmit Delay[ms]

Send Sub Tone

CTCSS

DCS

Preamble Time[ms]

Transmit Power

No.	Receive Filter	Call Sign	SSID
1	Off		Off
2	Off		Off
3	Off		Off
4	Off		Off
5	Off		Off
6	Off		Off
7	Off		Off
8	Off		Off

POSITION ☒

MIC-E ☒

OBJECT ☒

ITEM ☒

MESSAGE ☒

WX REPORT ☒

NMEA REPORT ☒

STATUS REPORT ☒

OTHER ☒

OK Cancel

#### d. Optional Settings4

##### i. Work Mode

Optional Setting

Alert Tone!

Work Mode

Work Mode

Display mode

VFM(R)(A)

MEM Zone(A)

VFM(R)(B)

MEM Zone(B)

Main Channel Set

Sub-Channel Mode

choose working mode

OK Cancel

##### ii. STE

Optional Setting

Alert Tone!

Work Mode

STE

STE Type Of CTCSS

STE When No Signal

Ste Time  Recommend setting is 250ms.

OK Cancel

##### iii. Key Function

Optional Setting

Alert Tone1

Power-on Alert Tone Display GPS/Ranging VFO Scan Auto repeater Record Volume/Audio

Work Mode Vox/BT STE FM Power Save Key Function Other Digital Func

Key Function

Key Lock	Manual
PF1 Short Key	Hot Key 1
PF2 Short Key	Hot Key 2
PF3 Short Key	Digital Monitor
P1 Short Key	Scan
P2 Short Key	APRS Send
PF1 Long Key	SMS
PF2 Long Key	VFO Scan
PF3 Long Key	LastCall Reply
P1 Long Key	Sub CH Switch
P2 Long Key	Ana Aprs Info
Long Key Time(s)	1
Knob Lock	Off
Keyboard Lock	Off
Side Key Lock	Off
Forced Lock Key	Off

OK Cancel

#### iv. Other

Optional Setting

Alert Tone1

Power-on Alert Tone Display GPS/Ranging VFO Scan Auto repeater Record Volume/Audio

Work Mode Vox/BT STE FM Power Save Key Function Other Digital Func

Other

Address Book Is Sent With Its Own Code	Off	TOT Predict	On
TOT	Off	TxPow Agc	On
Language	English		
Frequency Step	2.5K		
SQL Level(A)	1		
SQL Level(B)	1		
TBST	1000Hz		
Analog Call Hold Time(s)	0		
call channel is maintained	On		
Priority Zone A	OS4 Favorites		
Priority Zone B	OS4 Favorites		
Mute timing	2minute		
Encryption Type	Common		

OK Cancel

#### v. Power On

Optional Setting

Alert Tone1

Power-on Alert Tone Display GPS/Ranging VFO Scan Auto repeater Record Volume/Audio

Work Mode Vox/BT STE FM Power Save Key Function Other Digital Func

Power-on

Power-on Interface	Custom Char
Power-on Display	W T J K U R O B C H E R O K E E A R E S
Power-on Password	Off
Power-on Password Char	
Default Startup Channel	On
Startup Zone A	OS4 Favorites
Startup Channel A	OS4 WA4EOC
Startup Zone B	OS4 Favorites
Startup Channel B	OS4 WA4EOC
Startup GPS test	Off
Startup Reset	On

Set ON to allow MCU Reboot

OK Cancel

#### vi. Alert Tone



Optional Setting

Work Mode Vox/BT STE FM Power Save Key Function Other Digital Func

Alert Tone1 Power-on Alert Tone Display GPS/Ranging VFO Scan Auto repeater Record Volume/Audio

Alert Tone

SMS Alert Ring

Call Alert Ring

Digi Call ResetTone Off

Talk Permit Off

Key Tone Off

Digi Idle Channel Tone Off

Startup Sound Off

Tone/Key Sound Adjustable Adjustable

Ana Idle Channel Tone Off

plug-in recording tone Off

Idle Channel Tone

	Frequency(Hz)	Period(10ms)	Play
First Tone	2000	100	
Second Tone	0	100	
Third Tone	2000	100	
Fourth Tone	0	100	
Fifth Tone	2000	100	

Call Permit Tone

	Frequency(Hz)	Period(10ms)	Play
First Tone	1560	10	
Second Tone	1040	10	
Third Tone	1560	10	
Fourth Tone	1310	10	
Fifth Tone	1000	0	

Call Reset Tone

	Frequency(Hz)	Period(10ms)	Play
First Tone	3000	100	
Second Tone	0	100	
Third Tone	3000	100	
Fourth Tone	0	100	
Fifth Tone	3000	100	

OK Cancel

## vii. Display

Optional Setting

Work Mode Vox/BT STE FM Power Save Key Function Other Digital Func

Alert Tone1 Power-on Alert Tone Display GPS/Ranging VFO Scan Auto repeater Record Volume/Audio

Display

Brightness 5

Auto Backlight Duration Always

Backlight Delay Off TX(s) Off

Menu Exit Time(s) 60

Time Display On

Last Caller Show Both

Call Display Mode Turn off Talker Alias

Call Sign Display Color Orange

Call End Prompt Box Off

Display Channel Number Actual Channel Number

Display Current Contact On

Standby Char Color White

Standby BK Picture Custom1

Show Last Call On Launch Off

Separate display Off

CH Switching Keeps Last Caller Off

A Channel Name Color Green

Receive Backlight Delay(s) Always

B Channel Name Color Green

Zone Name Colour A Turquoise

Zone Name Colour B Turquoise

Display Channel Type On

Display Time Slot On

Display Color Code On

Date Display Format yyyy/mm/dd

Volume Bar Off

OK Cancel

## viii. GPS/Ranging

Optional Setting

Work Mode Vox/BT STE FM Power Save Key Function Other Digital Func

Alert Tone1 Power-on Alert Tone Display GPS/Ranging VFO Scan Auto repeater Record Volume/Audio

GPS/Ranging

GPS On

Get GPS Positioning On

Time Zone UTC-04:00

Ranging Interval(s) 5

Distance Unit Inch System

GPS Template Information Off

Gps Mode GPS

GPS Roaming Off

Satellite Location FIX-1

Sate TX Power Low

Sate ANA Sgl 0

Sate Acs Limit 0

OK Cancel

## ix. VFO Scan

Optional Setting

Work Mode Vox/BT STE FM Power Save Key Function Other Digital Func

Alert Tone1

Power-on Alert Tone Display GPS/Ranging VFO Scan Auto repeater Record Volume/Audio

VFO Scan

VFO Scan Type TD

VFO Scan Start Freq(UHF) 0.00000

VFO Scan End Freq(UHF) 0.00000

VFO Scan Start Freq(VHF) 0.00000

VFO Scan End Freq(VHF) 0.00000

OK Cancel

i.

#### x. Auto repeater

Optional Setting

Work Mode Vox/BT STE FM Power Save Key Function Other Digital Func

Alert Tone1

Power-on Alert Tone Display GPS/Ranging VFO Scan Auto repeater Record Volume/Audio

Auto repeater

Auto Repeater A Off

Auto Repeater B Off

Auto Repeater1(UHF) Off

Auto Repeater1(VHF) Off

Auto Repeater2(UHF) Off

Auto Repeater2(VHF) Off

Repeater Check On

Repeater Check Interval[s] 20

Repeater Check Reconnections 3

Repeater Out of Range Notify Off

Out of Range Notify(times) 3

Auto Roaming Off

Auto Roaming start condition Out Of Range

Auto Roaming at Fixed Time[m] 1

Roaming Effect Wait Time[s] None

Roaming Zone ROAM-DMR-LOCAL

Min Freq Of Auto Repeater1(VHF) 135.00000

Max Freq Of Auto Repeater1(VHF) 174.00000

Min Freq Of Auto Repeater1(UHF) 400.00000

Max Freq Of Auto Repeater1(UHF) 470.00000

Min Freq Of Auto Repeater2(VHF) 145.00000

Max Freq Of Auto Repeater2(VHF) 164.00000

Min Freq Of Auto Repeater2(UHF) 410.00000

Max Freq Of Auto Repeater2(UHF) 460.00000

OK Cancel

#### xi. Volume/Audio

Optional Setting

Work Mode Vox/BT STE FM Power Save Key Function Other Digital Func

Alert Tone1

Power-on Alert Tone Display GPS/Ranging VFO Scan Auto repeater Record Volume/Audio

Volume/Audio

Maximum Volume 8

Max Headphone Volume 8

Digi Mic Gain 1

Enhanced Sound Quality Off

Ana Mic Gain 3

Recommend setting is 5 for normal use.

OK Cancel

4. Enabled BrandMeister Special Configuration to support Any Tone requirements by sending the following commands to Private **262995**:

- i. **CONFIG ON**
- ii. **CONFIG DELAY 7**
- iii. **CONFIG SHORT**
- iv. **CONFIG** (to retrieve Configuration and confirm if active)

5. Now able to send weather requests to BrandMeister Private **262993** and receive response directly on the radio. **Example Message:**

- i. wx atlanta, us
- ii. wx gps

**Issue:** Currently cannot send SMS Message with SMS Confirmation enabled. I will need to research this a bit more...