

# AllStar for Amateur Radio

**Presentation to West Valley Amateur Radio Club**

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# Everyone can talk around the world!

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- With just a Technician License and ANY FM simplex transceiver, you can talk around the world, with simplex FM audio quality
- You can do this for a total investment of around as little as \$110 (not including the transceiver)
- THOUSANDS of linked nodes and repeater systems allow quick and simple contact with other hams all over the US and the world





# Popular AllStar Nodes

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- kitsforhams.com
  - **SHARI** (*SA818 Ham Allstar Radio Interface*) PiHat
  - SHARI PiHat (Unistorm Case)
    - Kit \$80 (solder the SA818S radio module onto the PCB for an additional \$5 – worth it)
    - Fully Assembled & Tested \$205, \$215 with fan



# Popular AllStar Nodes

- SHARI PI3U or PI3V
  - Kit - \$65
  - Fully assembled/tested \$90
- AliExpress SHARI clone
- Fully assembled ~ \$50
- AllScan ANF101 Full-Duplex Nodes with Retevis/TYT HTs - \$550





# What is required to run an AllStar Node?

Simplex FM transceiver of any kind (even a cheap Chinese HT)

A computer to run the AllStar software (AllStar Link or HamVOIP) - this computer can be a Raspberry Pi (most common), or Dell 3040 MiniPC, or similar

A fully-constructed AllStar PC board (can be purchased in kit form or fully assembled)

The AllStar node must be configured – accomplished via both SSH (Secure Socket Shell) and scripts. (Not difficult!)

Software to manage and control the node – also very simple to use

Connection Status

NR9V San Diego, CA - Node 571572					
Node	Node Info	Received	Dir	Connected	Mode
571572	Idle				
No Connections					

Node#

Add FavoriteDelete Favorite

ConnectDisconnectMonitorLocal MonDTMF

☐ Permanent☒ Disconnect before Connect

Favorites

#▲	Node	Name	Desc	Location	Rx%	LCnt
1	51597	AA6DP Catalina, CA	-	cloud	13	1
2	47487	AB9S HUB1-ASL2	Supermon Node	Chicago,IL	7	1
3	46969	AG4VA	SOTA Hub	Cloud, VA	2	0
4	27339	WB2JPQ East Coast Reflector	East Coast HUB1	Wilmington, NC, USA	26	101
5	512511	GB3CR Standby GB3CR	433.150 -1.6Mhz	North Wales UK	25	1
6	54318	GB3EG 430.9125	430.9125 + 7.6mhz	wigan, greater manchester	7	3
7	50683	GB3PI	145.750	Barkway, Hertfordshire, UK	15	1
8	2514	GB3ZB 430.825	430.825 +7.6MHz	Dundry, Bristol	10	1
9	41360	GB7SJ 433.175	433.175 +1.6 103.5hz	Northwich Cheshire UK	12	3
10	42235	K4JDR	441.725+Backbone HUB	Raleigh, NC	3	8
11	28404	K6RRR	San Diego Hangout	San Diego, CA	3	3
12	43763	K6TZ	SBARC Hub	Santa Barbara, CA	1	4
13	27833	K9IIK-R K9IIK	145.230 -600	Schaumburg, IL	15	0
14	59246	K9SA	443.250	Round Lake, IL	0	0
15	555491	K9TAY	CFMC 144 - 146.760	Chicago, IL	-	0
16	555492	K9TAY	CFMC 440 - 443.750	Chicago, IL	2	0
17	47243	KR8T	443.800+	Grand Rapids, MI	19	0
18	511681	KR9RK	442.000	Racine,Wisconsin	8	8
19	51288	M0HOY	HUBNet	Manchester, UK	30	36
20	2196	M0JKT	FreeSTAR UK HUB 1	freestar.network	18	43
21	45479	N0ECT	HUB/Server	Glenwood Springs, Colorado	3	10
22	46331	N4LMC W4GTA 145.350	W4GTA 145.350 100.0	Lookout Mtn, GA - EL W4EDP-R	15	10
23	29883	N6LXX MAIN HUB 29833	MAIN N6LXX HUB	HARVARD HUB	3	4
24	54576	N8UKF	443.200 Fusion	Muskegon Michigan	0	0
25	2495	N9GMT Milwaukee, WI	FM38 Network Hub	New Berlin, WI	14	20
26	53573	NWAG Morecambe, UK	NW AllStar Group	Lancashire, UK	17	25
27	55553	Parrot+ Dallas, TX	enhanced parrot	Plano, TX	3	4
28	47620	*ROC-HAM* W2JLD Hub 1	Radio Network Hub 1	Rochester, NY	15	6
29	47970	W3QV/R 147.03 PMRC	147.03/63 PMRC	Roxborough Philadelphia PA	12	9
30	50015	W4KEV/ R 145.370	145.370/R Knoxville	Knoxville, TN	2	12
31	51018	W6EK	145.430	Auburn, CA	7	37
32	44045	W7HEN HUB	W7HEN.org HUB	Henderson, NV	4	15
33	603231	W7YRC 146.880	146.880 Mhz Tanks	Prescott, AZ	1	1
34	472440	W8IRA	147.160+	Grand Rapids, MI	6	7
35	27404	W8MW US	SOUTHCARS HUB	USA	3	3
36	598730	W9BMK	P25 Bridge Astro DIU	Chicago, IL	-	0
37	42742	W9HHX	145.270-	Milwaukee, WI	0	0
38	43628	W9SBE Lockport, IL	Lkpt Hub	Lockport, IL	5	6
39	48752	WASAIR HUB#1	Conroe,Texas HUB	SouthCoastReflector.com [USA]	16	20
40	51560	WB9YPA/R	223.980 (-1.6MHz)	South Bend, Indiana	6	2
41	458800	WM9W	224.52MHz	Chicago	7	6
42	2462	WW7PSR 146.960	146.960-	Seattle, WA	41	36

Connection Status

N6ATC Goodyear, AZ - Node 524771					
Node	Node Info	Received	Dir	Connected	Mode
524771	Idle				
41288	M0HOY HUBNet Manchester, UK	Never	OUT	00:00:13	Transceive

Node#

Add FavoriteDelete Favorite

ConnectDisconnectMonitorLocal MonDTMF

☐ Permanent☒ Disconnect before Connect

Favorites

#▲	Node	Name	Desc	Location	Rx%	LCnt
1	458800	WM9W	224.52MHz	Chicago	-	-
2	51288	M0HOY	HUBNet	Manchester, UK	22	25
3	50683	GB3PI	145.750	Barkway, Hertfordshire, UK	9	1
4	40070	GB3NF	145.625Mhz -0.6Mhz	Nottingham, UK	20	0
5	512511	GB3CR North Wales, UK	433.150 +1.6Mhz	North Wales UK	22	1
6	41360	GB7SJ 433.175	433.175 +1.6 103.5hz	Northwich Cheshire UK	14	3
7	50711	M0RGV	-	Fleetwood/Lancashire/UK	-	-
8	53573	NWAG Morecambe	NW AllStar Group	Lancashire, UK	27	23
9	27339	WB2JPQ East Coast Reflector	East Coast HUB1	Wilmington, NC, USA	24	107
10	2462	WW7PSR 146.960	146.960-	Seattle, WA	36	40
11	502370	W8IRK	147.160+	Grand Rapids, MI	-	-
12	2135	K6TZ	SBARC Hub	Santa Barbara, CA	4	12
13	43763	W3QV/R W3QV Roxborough PA	147.03/63 PMRC	Roxborough Philadelphia PA	0	1
14	47970	W8IRA	147.160+	Grand Rapids, MI	11	15
15	472440	W8MW US	SOUTHCARS HUB	USA	10	7
16	51018	W9BMK	P25 Bridge Astro DIU	Chicago, IL	11	28
17	48496	W9SBE Lockport, IL	Lkpt Hub	Lockport, IL	14	7
18	2514	KR9RK	442.000	Racine,Wisconsin	25	1
19	2065	KR8T	443.800+	Grand Rapids, MI		
20	48423	AA6DP Catalina	-	cloud		
21	51597	*A MistFit Hub* N7ADR	MistFit Network USA	www.mistfithub.net		
22	506451	N9GMT FM38 Network Hub	FM38 Network Hub	New Berlin, WI		
23	2495	*ROC-HAM* W2JLD Hub 1	Radio Network Hub 1	Rochester, NY		
24	47620	K7LWH	145.49	Kirkland WA		
25	51860	SKYHUB Hub, Denver, CO	SkySystem Hub	Denver, Co, USA		
26	46079					

AllScan – the BEST way to control a node

- Simple, quick, and efficient way to manage and control your node
- Runs great on a desktop PC or a smartphone

### Connection Status

N6ATC Goodyear, AZ - Node 524771					
Node	Node Info	Received	Dir	Connected	Mode
524771	PTT-Keyed				
41288	M0HOY HUBNet Manchester, UK	00:00:01	OUT	00:01:15	Transceive

Node# 41288

Add Favorite

Delete Favorite

Connect

Disconnect

Monitor

Local Mon

DTMF



Permanent



Disconnect before Connect

### Favorites

#▲	Node	Name	Desc	Location	Rx%	LCnt
1	458800	WM9W	224.52MHz	Chicago	-	-
2	51288	M0HOY	HUBNet	Manchester, UK	22	25
3	50683	GB3PI	145.750	Barkway, Hertfordshire, UK	9	1
4	40070	GB3NF	145.625Mhz -0.6Mhz	Nottingham, UK	20	0

AllScan – close up



# N6ATC - Supermon 7.2+ (HV) AllStar Manager



Logout

Munds Park, Arizona, USA

524778 RPi4 SHARI Node

Allstar/IRLP/Echolink System Manager

524772 IRLP Status HAMVOIP

Permanent ☐

Local and Remote Control:

Connect

Disconnect

Monitor

Local Monitor

DTMF

Lookup

Rpt Stats

Bubble Chart

Control

Favorites

Local Control Only:

Configuration Editor

Iax/Rpt/DP RELOAD

AST START

AST STOP

RESTART

Server REBOOT

SW Update?

AllStar How To's

AllStar Wiki

CPU Status

AllStar Status

Node Info

Active Nodes

All Nodes

GPIO

Linux Log

AST Log

Connection Log

Web Access Log

Web Error Log

Restrict

[ N6ATC-524772 ]

[ WAN: [24.255.54.183](#) ]

[ WLAN: 192.168.99.222 ]

[ WebP: 82 ]

[ AstP: 4569 ]

[ MgrP: 5038 ]

[ SShP: 222 ]

[ Monday, October 28, 2024 MST 11:41:52 up 3:07, 0 users, load average: 0.24, 0.21, 0.18 ]

Support

Display Configuration

[ CPU: **96°F, 36°C** @ 11:41 ]

[ Weather conditions for Munds Park, Arizona, USA - 86017: **66°F, 18.7°C / Partly Sunny** ]

Node [524772](#) => N6ATC 433.775 Goodyear, AZ [Bubble Chart](#) [LsNodes](#)

Node	Node Information	Received	Link	Direction	Connected	Mode
524772	PTT-Keyed					
51860	K7LWH 145.49 Kirkland WA	000:00:09	ESTABLISHED	OUT	00:30:48	Transceive

-

System maintained by: Curt, N6ATC

Supermon – the other way to control and manage an AllStar node (legacy, and still useful)

# **AllStar Demonstration**