Ham 304 – AS3 Maker: Parts List
Dr. Marc & Rosemary © 2407012

1. Parts list for common computer components of all AllStarLink 3, voice-over-ip (Voip) nodes.

Component	Vendor model	$	
Raspberry Pi Mod 3B makes less heat	Amazon Scalpers model 2 – 5 (recommend 3B)	$65	
Power supply 5.1 V, 2.5A for #3, 3.0A for #4	Amazon	$8	
microSD card, 8 - 32 GB, Class 10 or better. Avoid 64 GB or >.	SanDisk extreme Amazon, WalMart	$10	
AllStarLink OS, download	AllStarLink.org or Elmer	---	
USB radio adapter	MastersCommunications.com RL-20	$25 kit $55 made	
USB-A to USB-B cable	supplied w/ adapter	---	
Case	Brett KI5TAX makes custom cases	$	
Ethernet & Wi-Fi built in			

Raspberry Pi 3
Adapter RL-20

2. Parts list for *Local / RF-less Link* digital radio node, suitable for direct digital connection to a repeater / link.

Component	Vendor model	$	
Ethernet extension cable RJ45-RJ12 female connect	Amazon. Depends on mic. Alinco type does not need .	$7	
Mic 5V DTMF shielded Alinco EMS-57 Knockoff (not shielded)	DXEngr or HRO Amazon, et al	$70 $25	
3.5mm (1/8") female jack to bare wire, TRS, stereo	Amazon	$3	
Computer powered speaker with 3.5mm TRS male plug. Similar to Logitech S120 or Cyber Acoustics CA-2014		$13	
DB9 (D-sub) male breakout connector		$8	

3. Parts list for *Simplex Link*, suitable for wireless RF to a node, then digital to a repeater or link.

Component	Vendor model	$	
Baofeng UV-xx Radio, 8W	Amazon	$25	
Baofeng mic plug	Amazon (cut from mic)	$8	
FET 2N7000 transistor	Amazon	$0.55	
Resistor 4.7KΩ, 1/8W		$0.06	
DB9 (D-sub) male breakout connector		$8	

4. Changing the cable & end device reconfigures the AllStar node to simplex link or local digital-radio link.
5. Life is good. Enjoy!