

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
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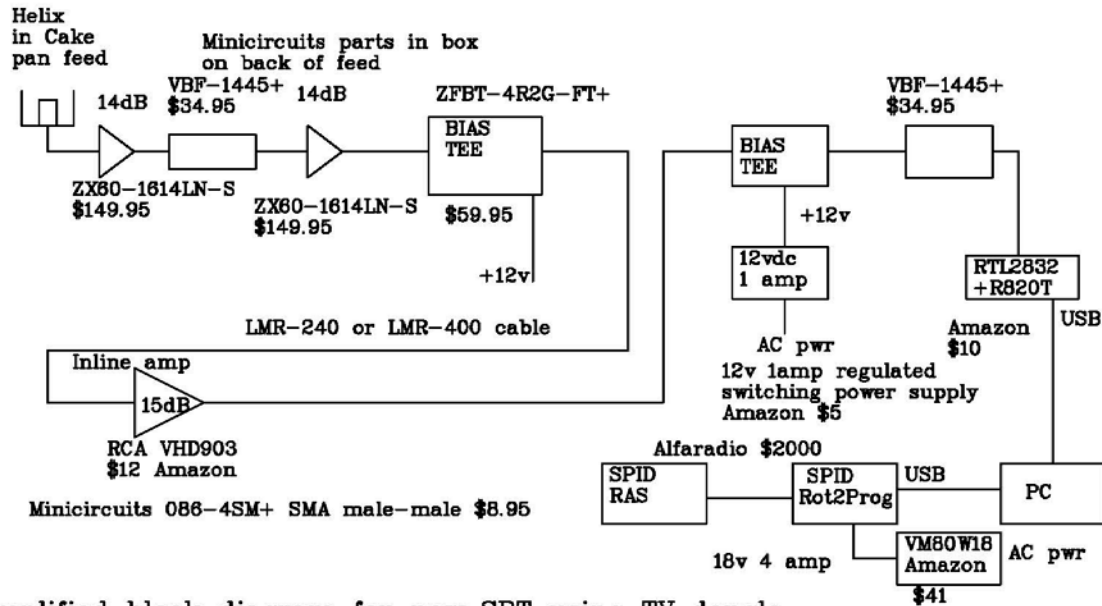
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To: SRT Group

From: Alan E.E. Rogers

Subject: Block diagram and parts list for SRT using TV dongle



Simplified block diagram for new SRT using TV dongle

Figure 1 shows a simplified block diagram for a SRT using a TV dongle.

SRT Parts List

Prices do not include shipping

Dish and Rotor							
ASRAS bundle (SPID+Rot2Prog)	Alpha Radio				1	\$2061.00	\$2061.00
7.5 ft mesh dish	Various Source (check e-bay)				1	\$300.00	\$300.00
Option 2: SPID controller + dish 3m dish kit	rffhamdesign.com						
Option 1: concrete pier mount							
2" schedule 40 pipe, 8 ft			Metals Depot	T52	1	\$52.56	\$52.56
Concrete mix, 80lb bags	Quickrete		Home Depot	169765	27 (+/-)	\$3.55	\$95.85
Option 2: non penetrating roof mount							
NPRM-10 roof mount	ebay						
NPRM 3.5 mount	Orbit Communications				1	\$349.95	\$349.95
Concrete blocks			Home Depot	619280	66	\$1.27	\$83.82
Feed and LNA							
Cables, Connectors, Adapters							
Adapter, SMA- M to SMA-M right angle	Amphenol Connex	132339	Digi-Key	ACX1430-ND	1	\$8.03	\$8.03
Cable, 4" hand flex SMA-M to SMA-M	Mini-Circuits	086-4SM+			1	\$8.95	\$8.95
Cable, 6" hand flex SMA-M to SMA-M	Mini-Circuits	086-6SM+			1	\$8.95	\$8.95
Hardware							
6061 aluminum sheet 0.09" thick, 5.7"x2.16" custom cut	Online Metals				1	\$1.48	\$1.48
Cake pan, 7"x3" round	Magic Line		Ultimate Baker	LLPRD73	1	\$6.60	\$6.60
Fat Daddio's Anodized Aluminum Round Cake Pan 7 inch x 3 inch	Amazon				1	\$8.98	\$8.98
Cap screw, 1/4- 20x3.25"	McMaster-Car	92198A556			10	\$4.29/10	\$4.29
Lock washer, 6-32	McMaster-Car	92146A540			4	\$1.69/100	\$1.69
Machine screw, 6-32x1/2"	McMaster-Car	91772A148			2	\$5.14/100	\$5.14
Machine screw, 6-32x1"	McMaster-Car	91772A153			4	\$7.43/100	\$7.43
Nut, 6-32	McMaster-Car	90480A007			14	\$1.16/100	\$1.16
Nut, 1/4-20	McMaster-Car	92673A113			1	\$3.95/50	\$3.95
O-ring, 7/32" ID	McMaster-Car	9557K461			3	\$6.29/100	\$6.29
PC board, unclad, 5"x4.5"	Twin Industries	7100-45	Digi-Key	438-1019-ND	1	\$4.68	\$4.68
Sytofoam rod, 2.5"x24"			Kit Kraft	302829 (5)	1	\$44.95	\$44.95
Tape, copper foil, 1" wide	3M	1125 Tape 1"	Mouser	517-1125-1.0	1	\$30.49	\$30.49
Washer, 1/4"	McMaster-Car	92141A029			2	\$3.37/100	\$3.37
Wire, 22 gauge stranded, orange	Jameco	818-3				\$9.95/100ft	\$9.95
Enclosures							
Enclosure, aluminum, waterproof, 2.6"x4.7"	Hammond Manufacturing	1590WN1F	Newark	41T1393	1	\$22.26	\$22.26
Modules							
Amplifier, ultra- low noise	Mini-Circuits	ZX60-1614LN-S			2	\$149.95	\$299.90
Band-pass filter, 1420-1470 MHz	Mini-Circuits	VBF-1445+			1	\$34.95	\$34.95

Coaxial bias-tee 10-4200 MHz	Mini-Circuits	ZFBT-4R2G-FT+	2	\$59.95	\$59.95
TV Dongle	Amazon	RTL2832+R820T	1	\$10.00	\$10.00
Inline amplifier	Amazon	RCA VHD903	1	\$12.00	\$12.00
12v power supply (1 amp)	Amazon		1	\$5.00	\$5.00
18v power supply	Amazon	VM80W18	1	\$41.00	\$41.00