

Suitsat-1 Status

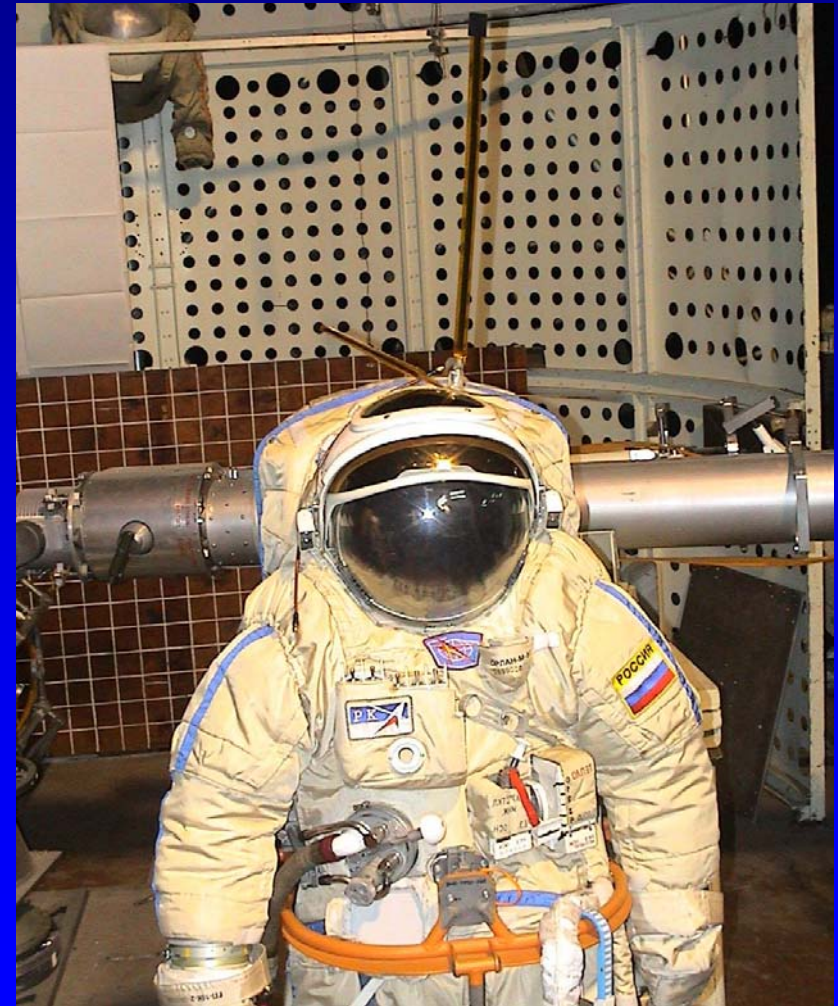


*ARISS International
Delegate Meeting
University of Surrey
August 2, 2005*

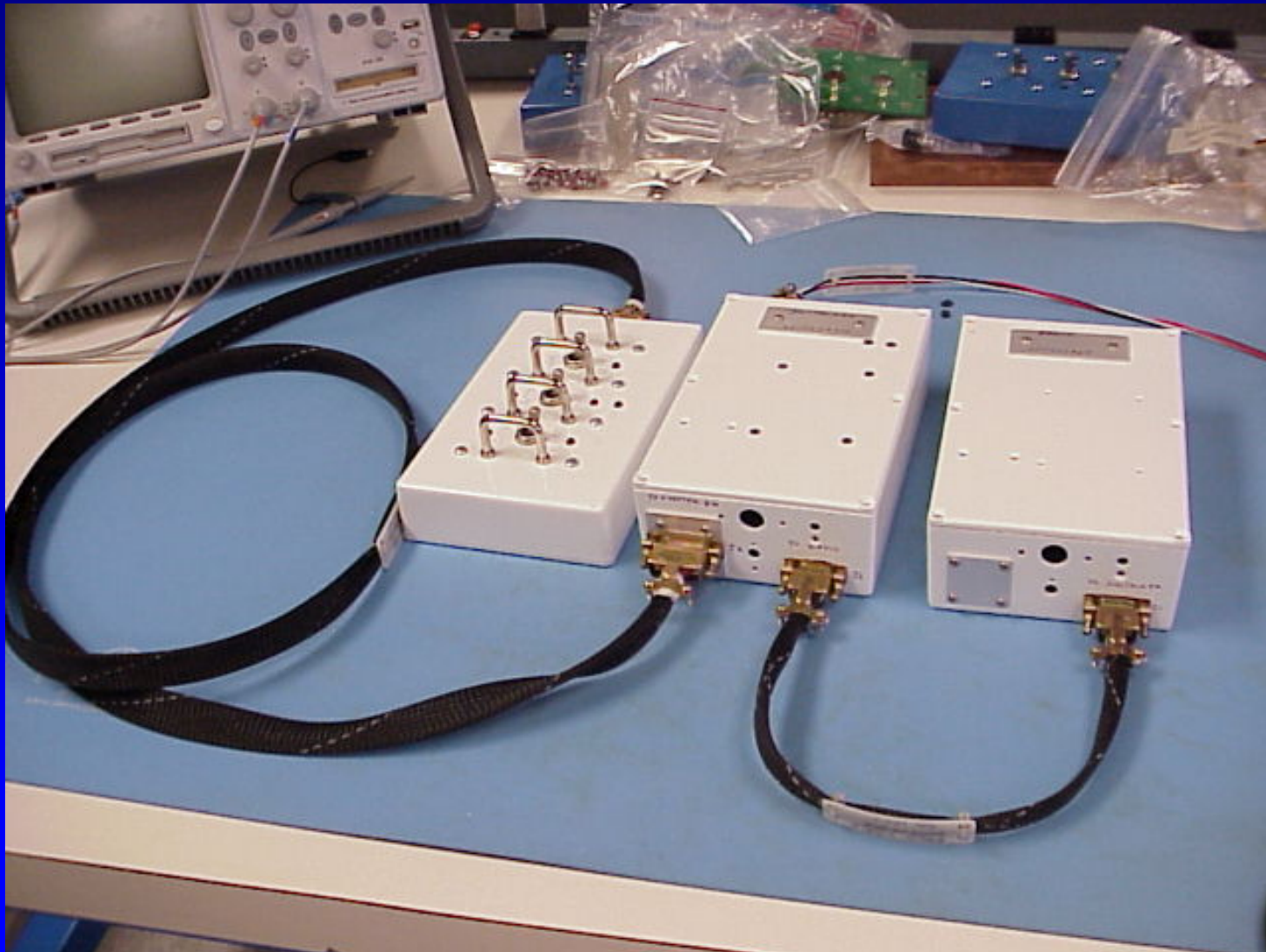
Sergey Samburov, Frank H. Bauer & Lou McFadin

SuitSat--Amateur Radio Extra Vehicular Activity (EVA) In a Space Suit

- Russian-led initiative w/ USA Support
- Capabilities:
 - International Student Message Downlink
 - SSTV Picture
 - Telemetry
 - School Spacewalk—DVD with school name, artwork and student names included
- Expected deployment: Sept/Oct 2005
- 145.99 MHz downlink



Suitsat Flight Hardware System



Suitsat Control Box

CONTROL BOX
БЛОК УПРАВЛЕНИЯ

P/N SUITX05930
S/N 001

ON
ВКЛ

OFF
ВЫК

POWER
ПИТАНИЕ

TIMER 1
ТАЙМЕР 1

TIMER 2
ТАЙМЕР 2

SAFE
СТУПЕНЬ

POWER 12V

POWER
28V

T1
COUNTING

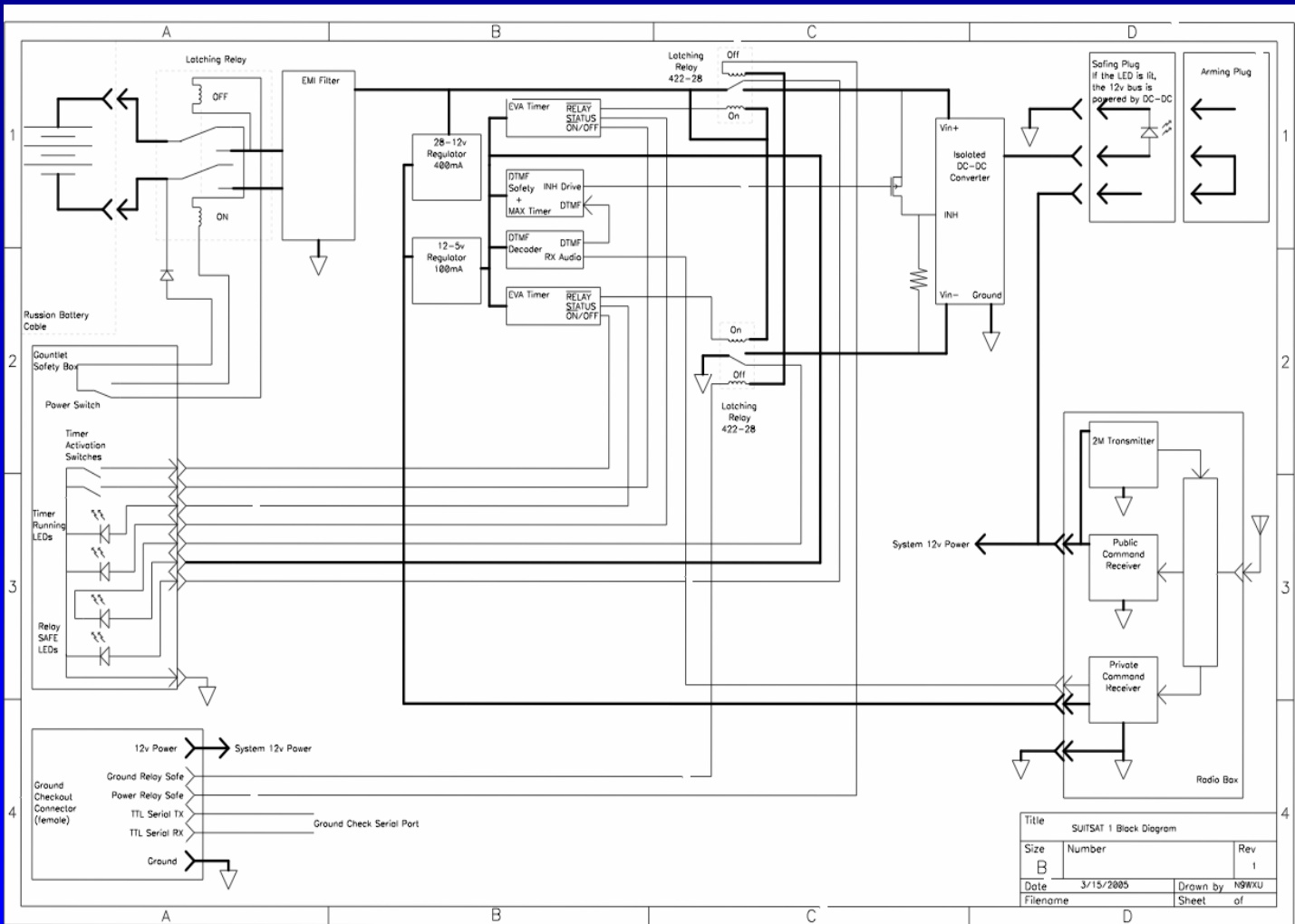
T2
ENABLED

OFF

SAFE

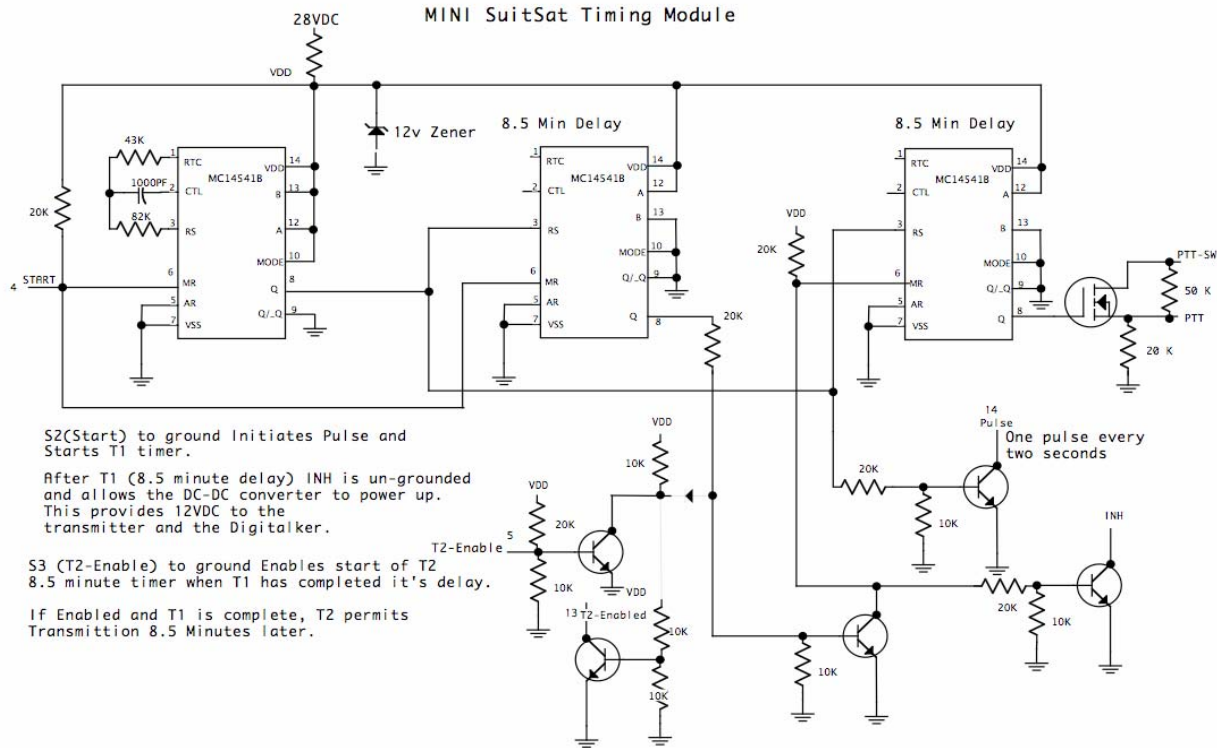
SAFE





Title			SUITSAT 1 Block Diagram		
Size	Number	Rev			
B		1			
Date	3/15/2005	Drawn by	H98XU		
Filename		Sheet	of		

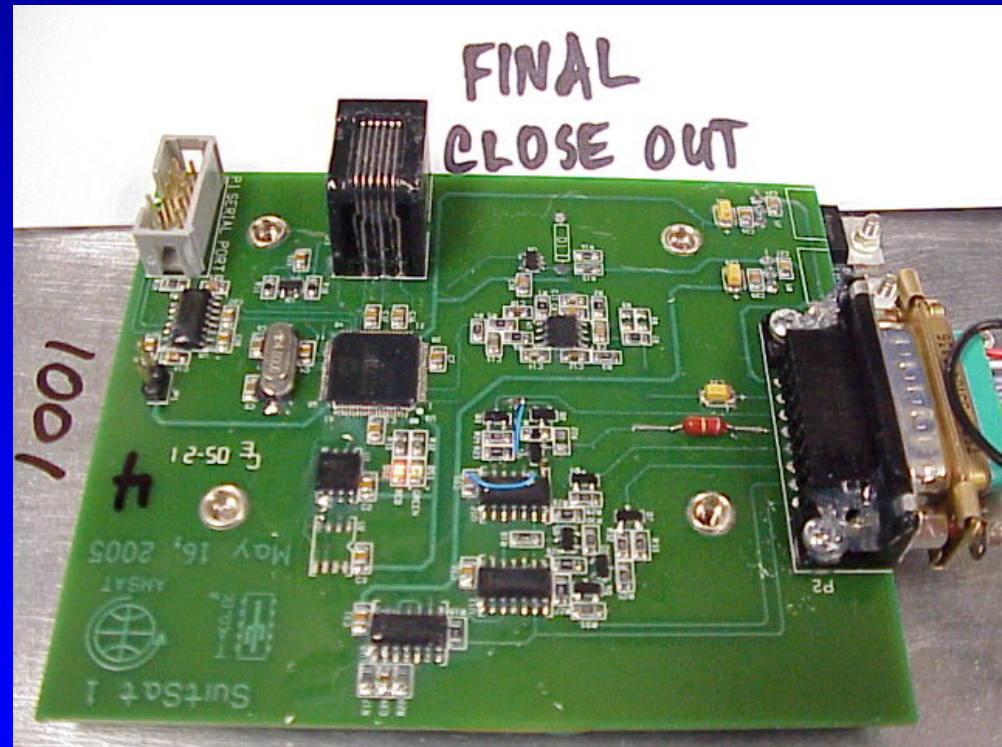
Timing Module



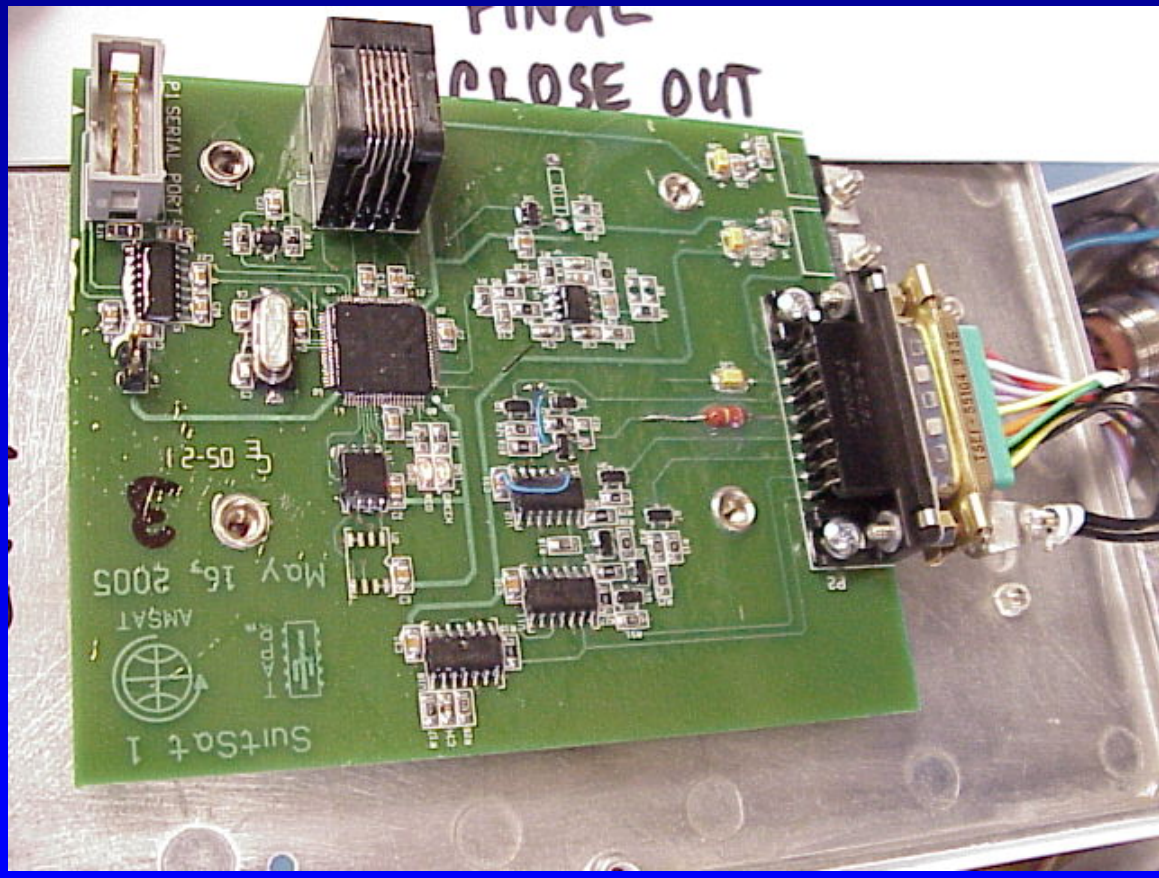
Connector end



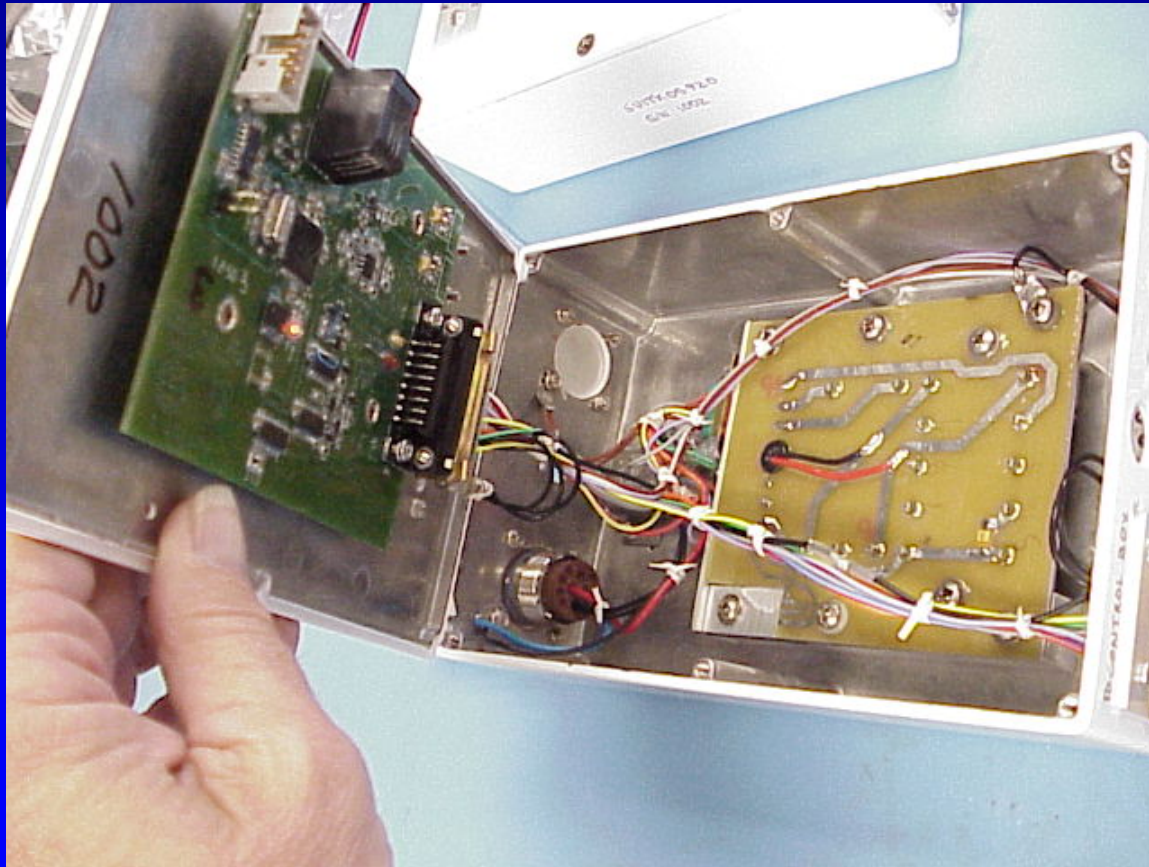
Digitaler Box



Digitalalker Board



Inside the Digitalker Module



Transmitter Planned

KENWOOD

INSTRUCTION MANUAL



144MHz FM TRANSCEIVER

TH-K2AT

TH-K2E

TH-K2ET

400MHz FM TRANSCEIVER

TH-K4AT

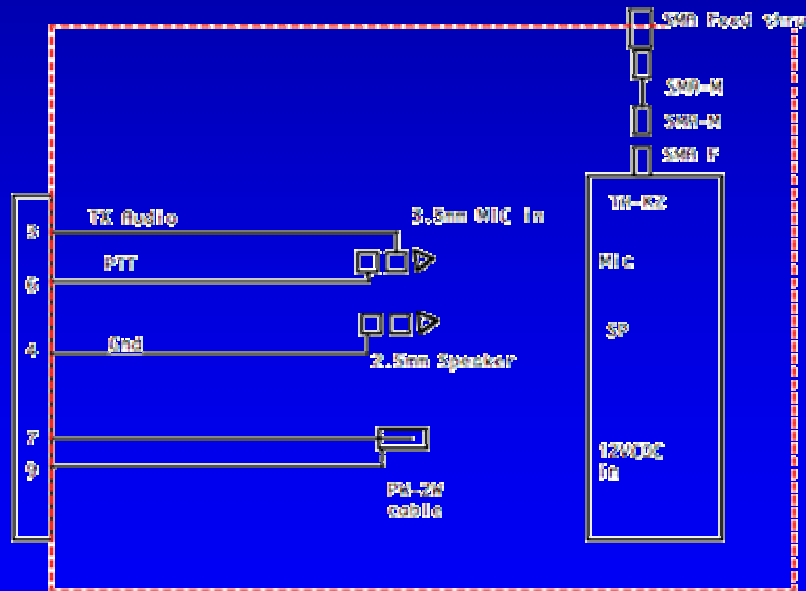
TH-K4E

KENWOOD CORPORATION

© 1994-1999 KENWOOD CORP., P.O. BOX 21, MFG
DIVISION, TORONTO, ONTARIO M2H 6L2 CANADA

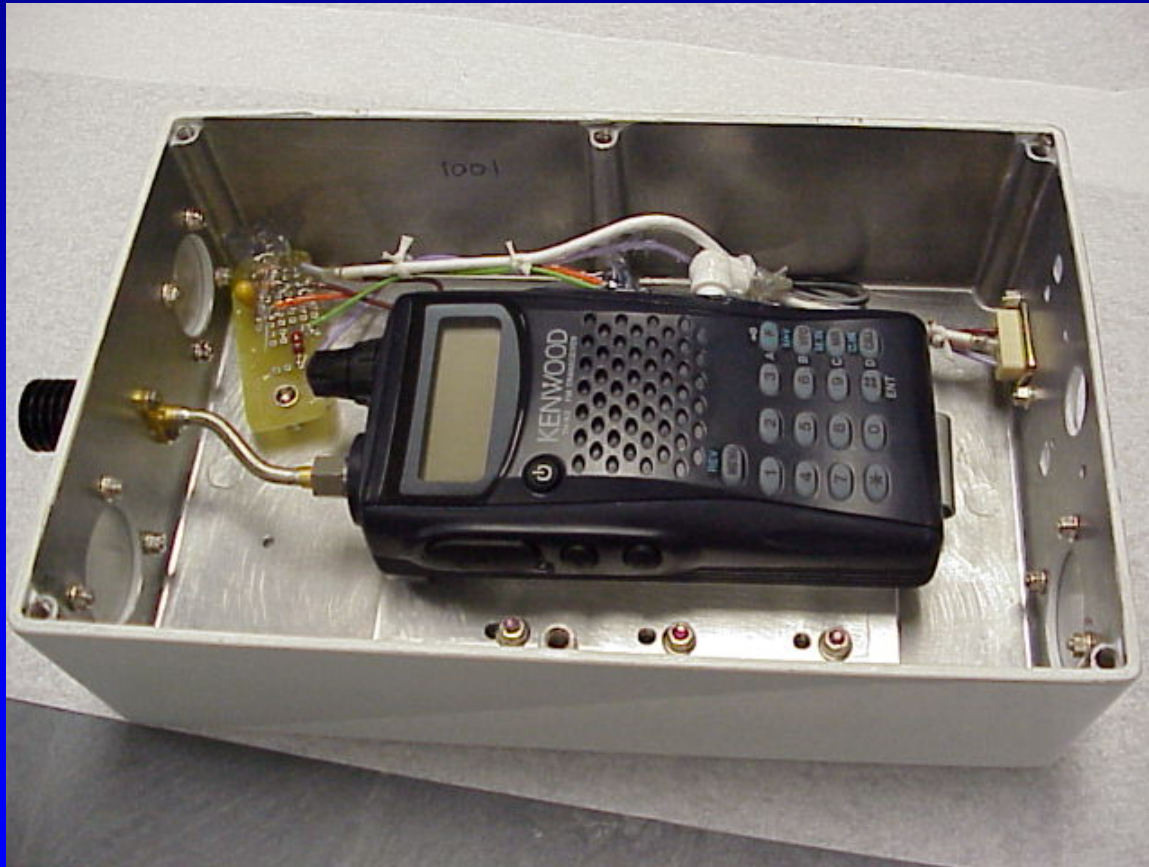
Transceiver Interface

MINI-Switch
Transceiver interface



MSD 110
5/12/05

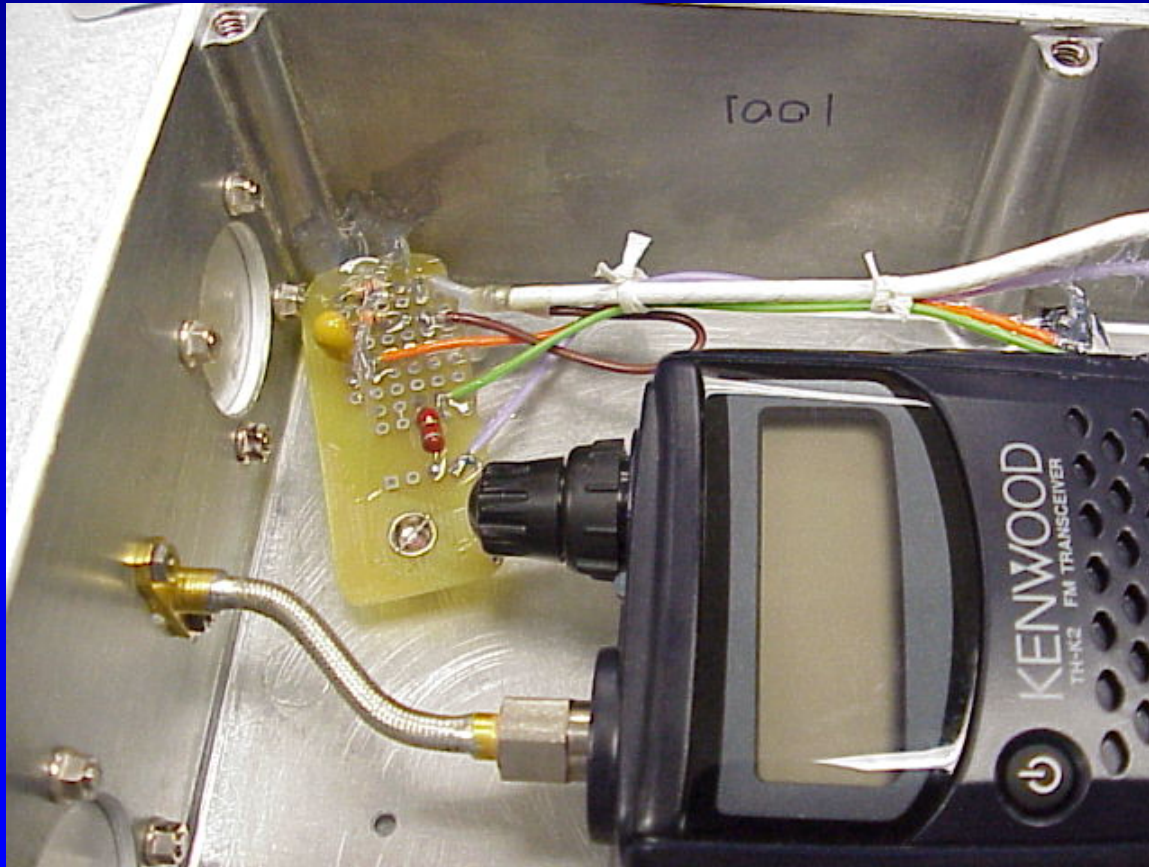
Inside Radio Module



Final Setup

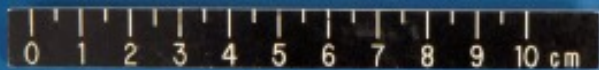


Antenna end



Radio Box

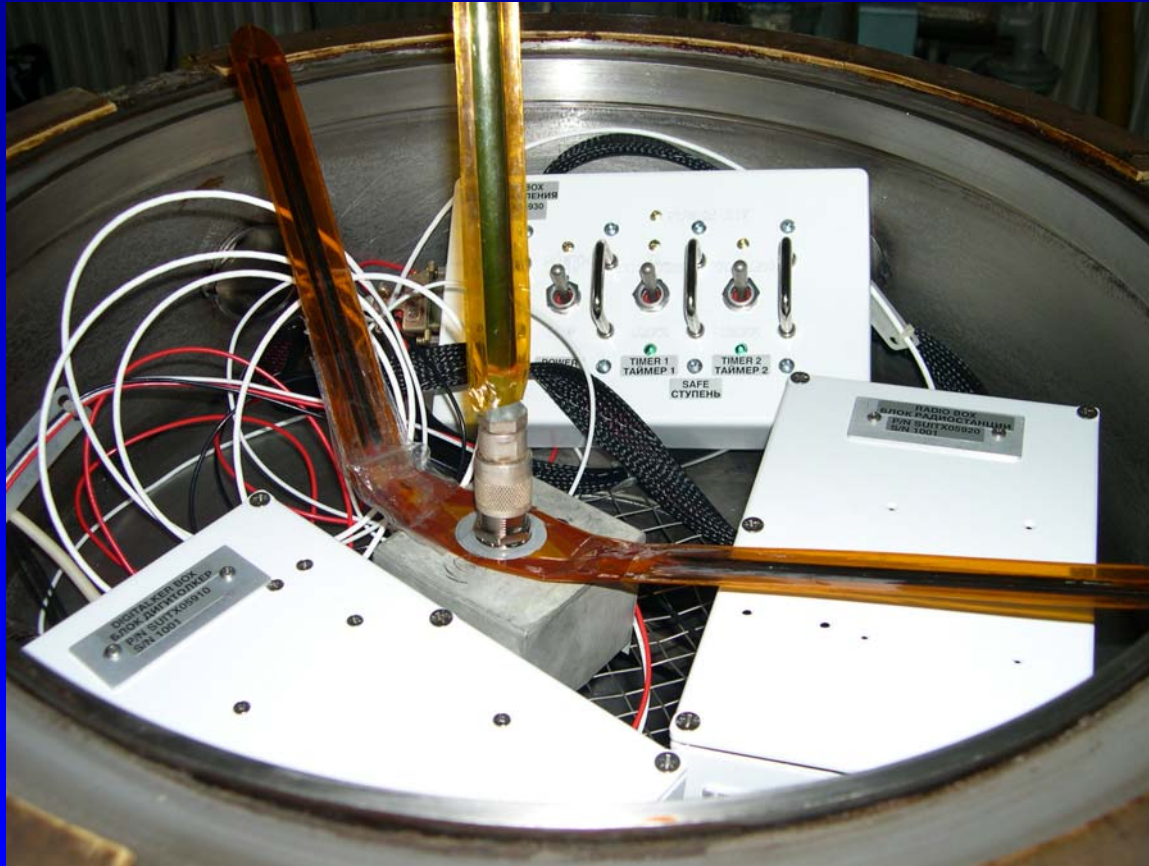




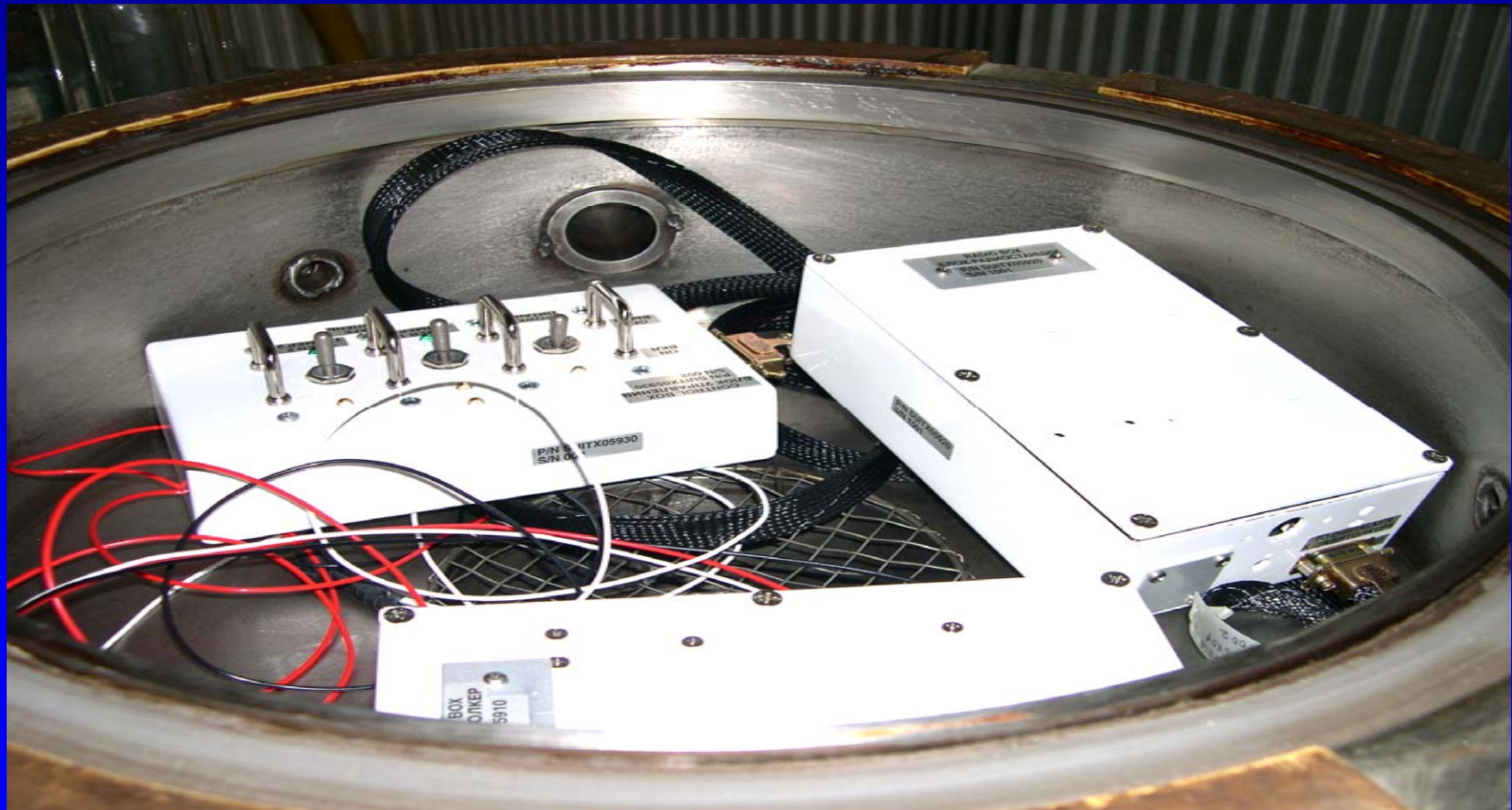
Vacuum test chamber



Suitsat 1 in chamber



Suitsat 1 in Vacuum Chamber





Suitsat Crew Training



Suitsat Downlink

- Sequence:
 - Suitsat voice ID
 - International voice message, Suit Telemetry (Voice), or SSTV Image
 - 30 second pause
- Telemetry Voice Downlink
 - Mission Time
 - Suit Temperature
 - Battery Voltage
- International Messages in Russian, English, French (Canada), Spanish, German and Japanese

SuitSat School Spacewalk Pictures, Artwork and Signatures from Students around the world



flowerswatercolor!
Linda Winder student at
Art Academy of Cincinnati

Kamishirane Elementary School, Yokohama Japan



みんがスマイル 30年の思いを胸に キラッと輝く上白根っ子
横浜市立上白根小学校 創立 30 周年記念