

Diseño y Construcción de una carga útil de aficionados

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Agenda

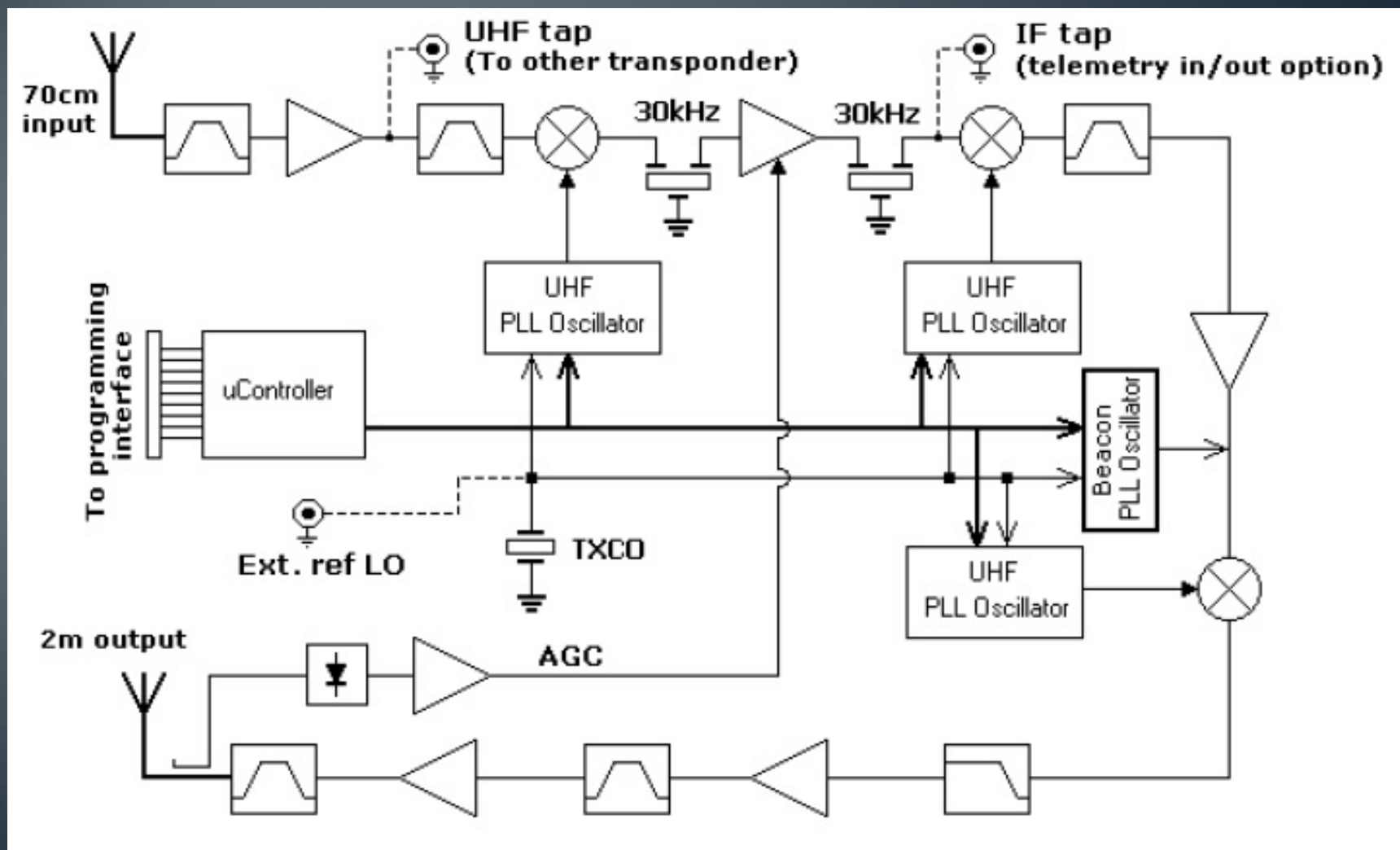
- Antecedentes
- El Transponder Lineal
- La Placa Host
- La Antena
- El Lanzamiento
- Pruebas y Operación
- Conclusiones

EL Transponder Lineal

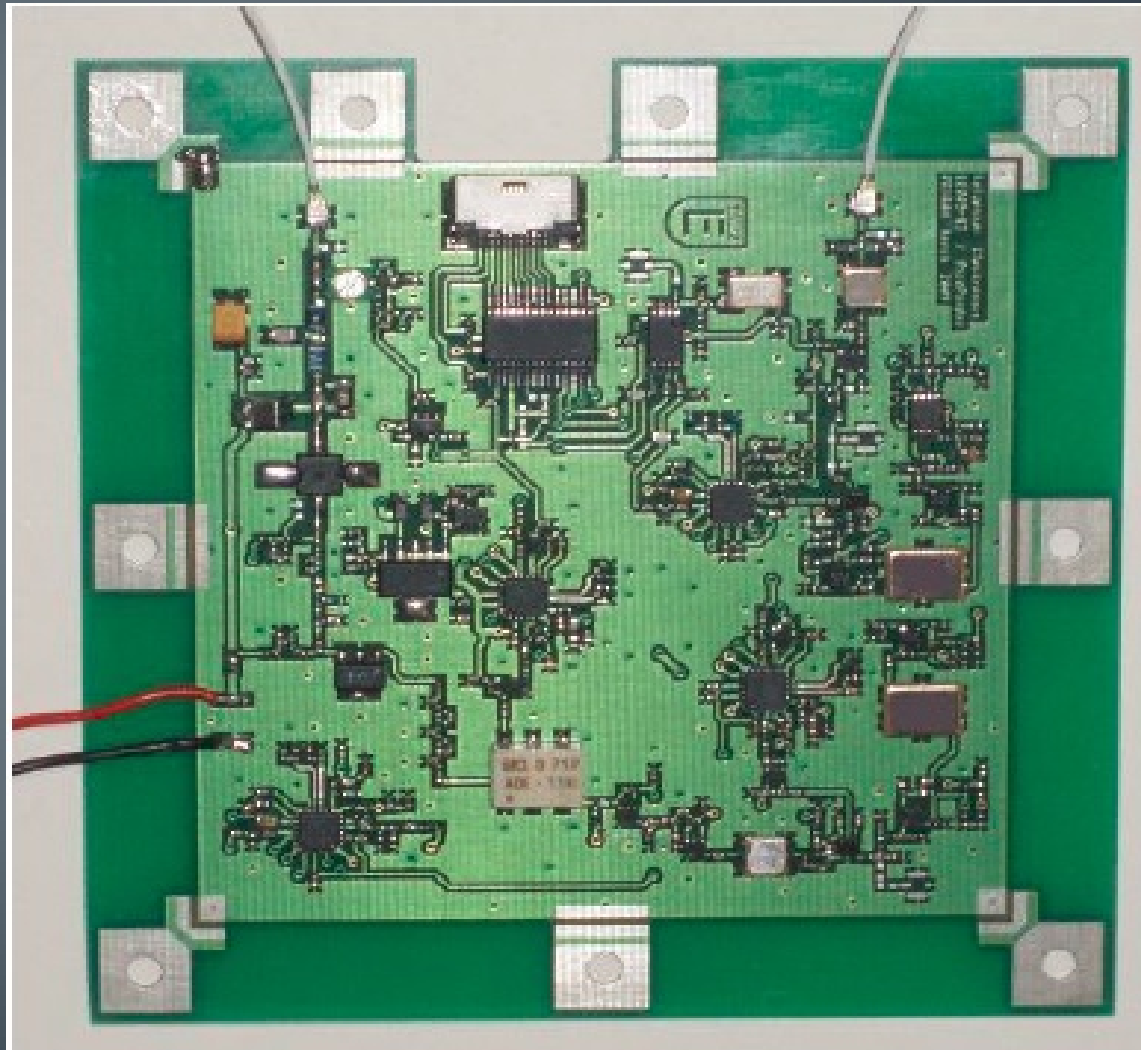


- Linear Transponder (CW, AM, SSB, FM)
- Mode-UV (70cm receive, 2m transmit)
- TXCO stable Uplink and downlink Frequencies
- All frequencies software programmable
- 23dBm PEP Typical Output Power
- Linearity controlled by AGC loop
- Onboard CW message beacon
- Beacon frequency and power software programmable
- Small Size: 90mm x 90mm x 5mm
- Light weight: less than 30 grams
- Supply Voltage Range: 3.6V to 4.0Vdc
- Under voltage shut-off protection
- Onboard fuse in case of failure
- Possibility to use external reference oscillator
- Tap available after 70cm pre-amp
 - For use with other onboard receiver
- Tap available in 1st IF path
 - For external telemetry unit (rx and tx)

EI Transponder Lineal



EI Transponder Lineal



La Placa Host (Diseño)



Altium Designer Winter 09 - C:\Users\user\Desktop\AMSAT\AMSAT\Desarrollo\exp006-AMSAT.PcbDoc * - exp006-AMSAT.PrjPcb. Licensed to Pablo. Not signed in.

DXP File Edit View Project Place Design Tools Auto Route Reports Window Help

C:\Users\user\Desktop\AM: (All)

Projects

exp006-AMSAT.PcbDoc * exp005-AMSAT.PcbDoc exp005-AMSAT.SchDoc

Works Workspace

exp006-AM Project

File View

Structure Editor

exp006-AM

- Source Dc
 - exp006-
 - exp005-
- Settings
- Generatec
- Free Docu
 - Source Dc
 - exp005-

x:262,026 dx:187,274 mm
y:149,530 dy:-19,583 mm
Snap: 0.0254mm Electrical: 0.0254mm
Shift + H Toggle Heads Up Display
Shift + G Toggle Heads Up Tracking
Shift + D Toggle Heads Up Delta Origin Display
Shift + M Toggle Board Insight Lens

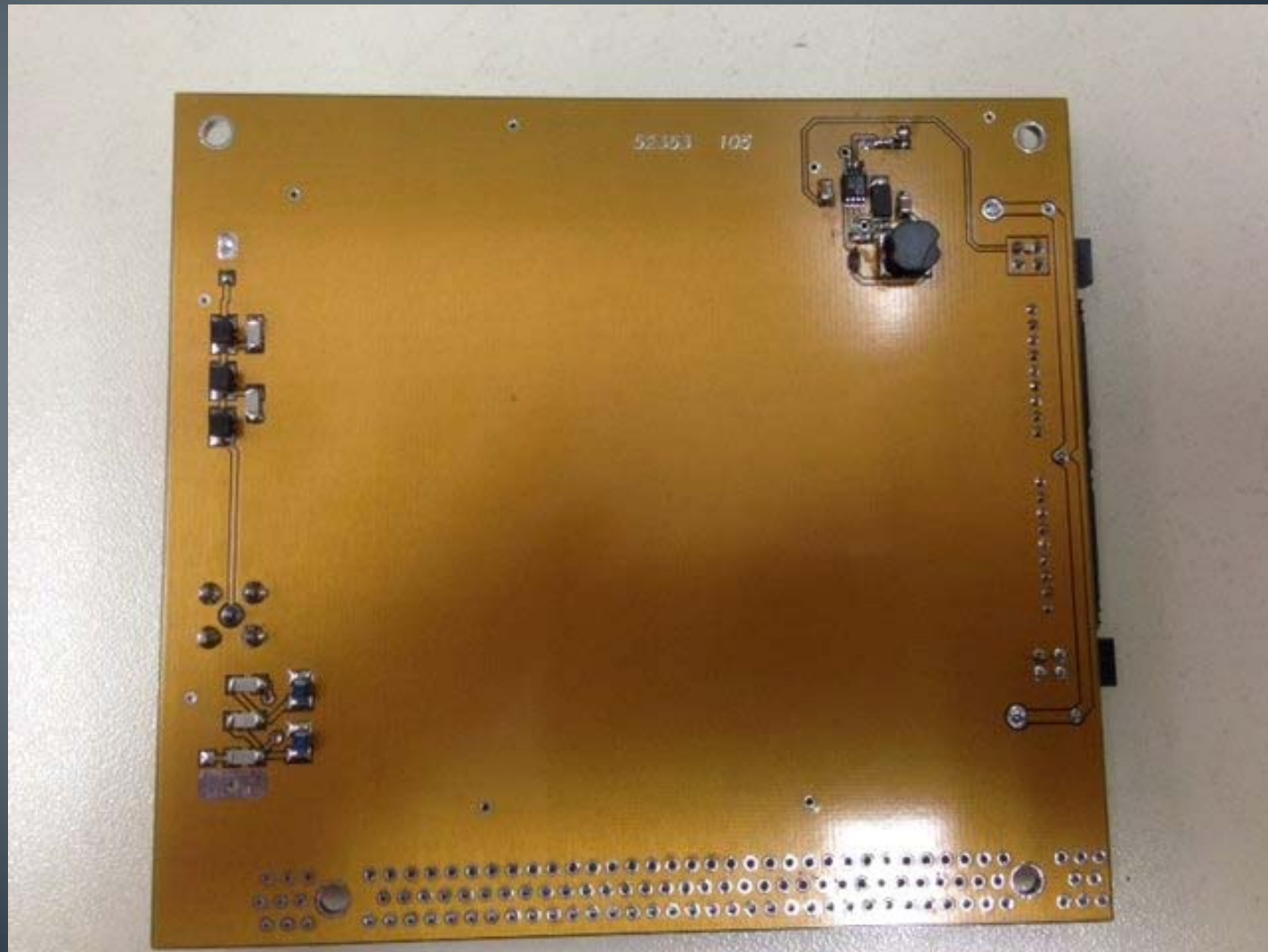
5,00 5,00 5,00 5,00 68,45 20,49 10,00

LS Top Layer Bottom Layer Mechanical 1 Mechanical 13 Mechanical 15 Notas Satellogic Top Overlay Bottom Overlay Top Paste Bottom Paste Mask Level Clear

X:262.0264mm Y:149.5298mm Grid:0.0254mm (Electrica)

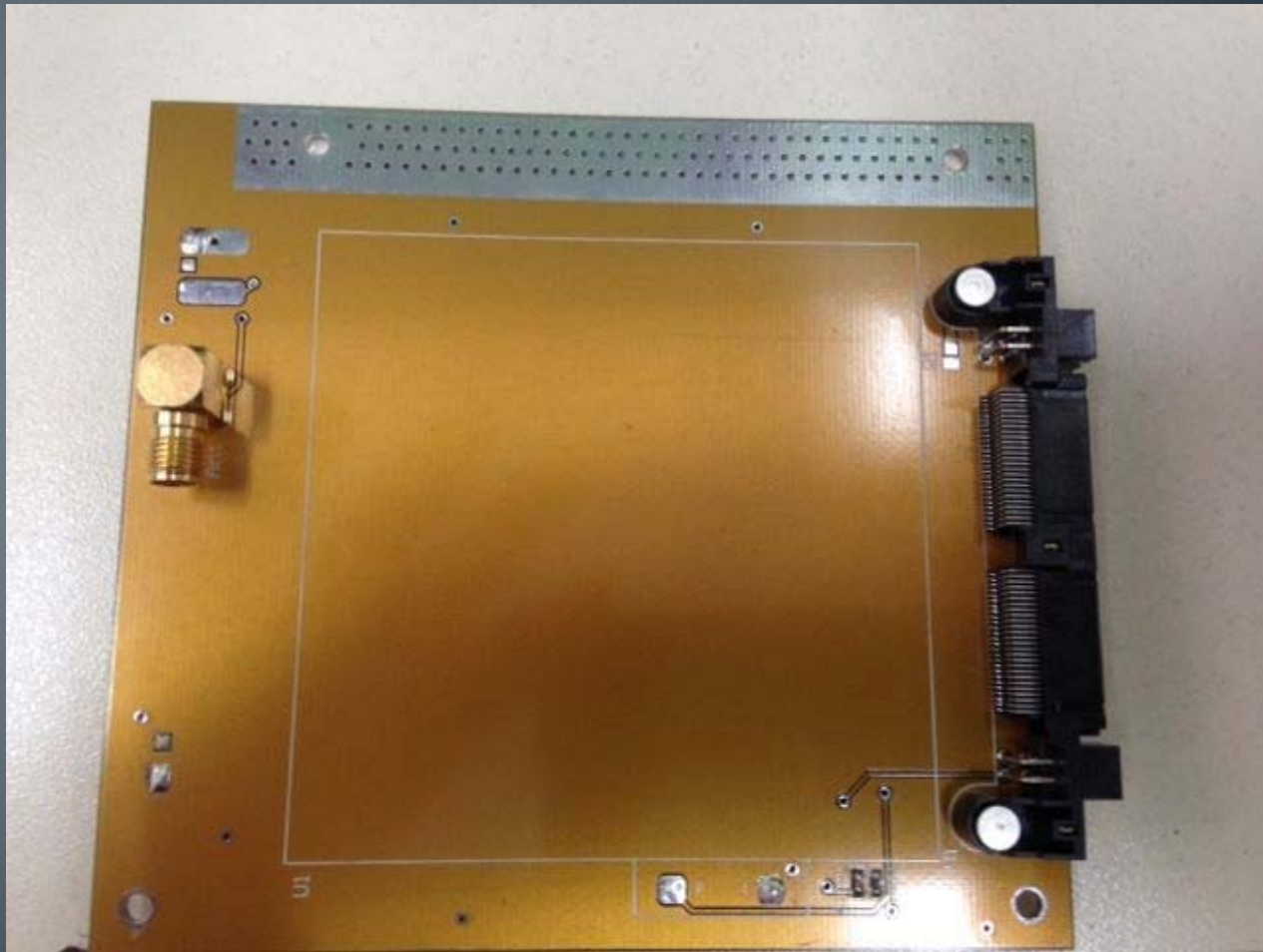
System Design Compiler Help Instruments PCB >>

La Placa Host





La Placa Host (Base)



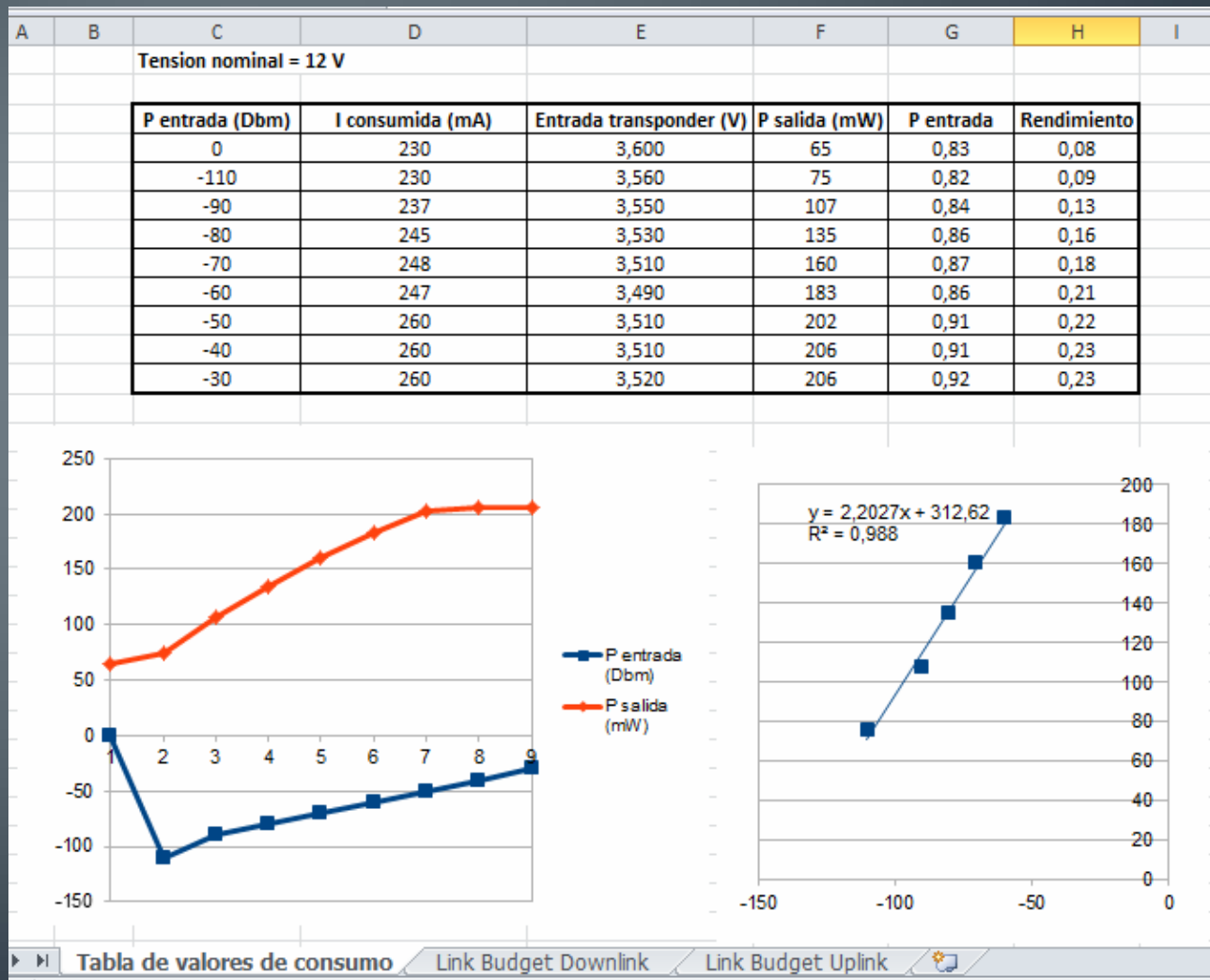


La Placa Host (montada)





Tabla de valores de consumo



La Antena

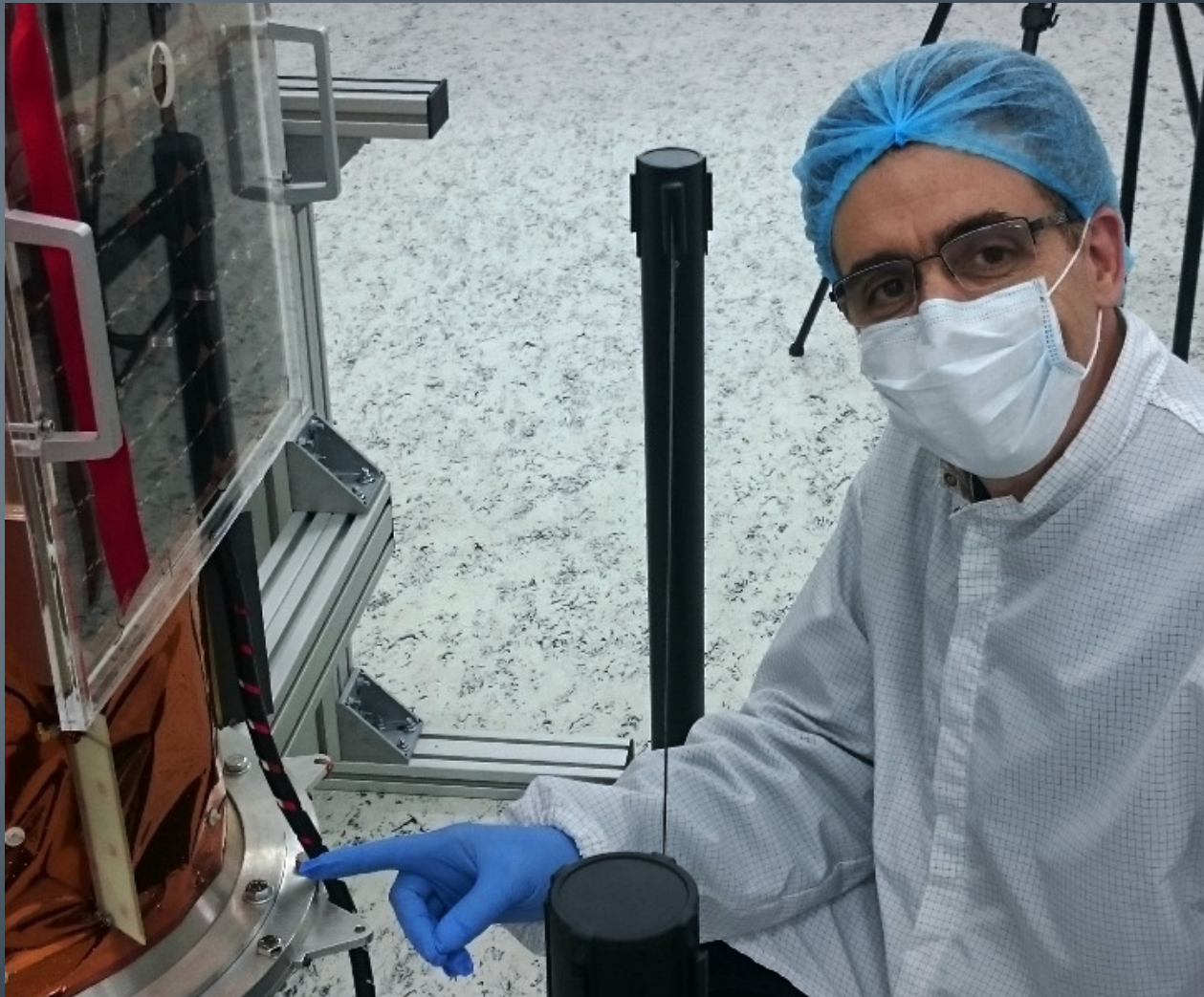


Saturn PCB Design, Inc. - PCB Toolkit V6.86 - www.saturnpcb.com

File Program Function Tools Help | Contact Saturn PCB Design, Inc.

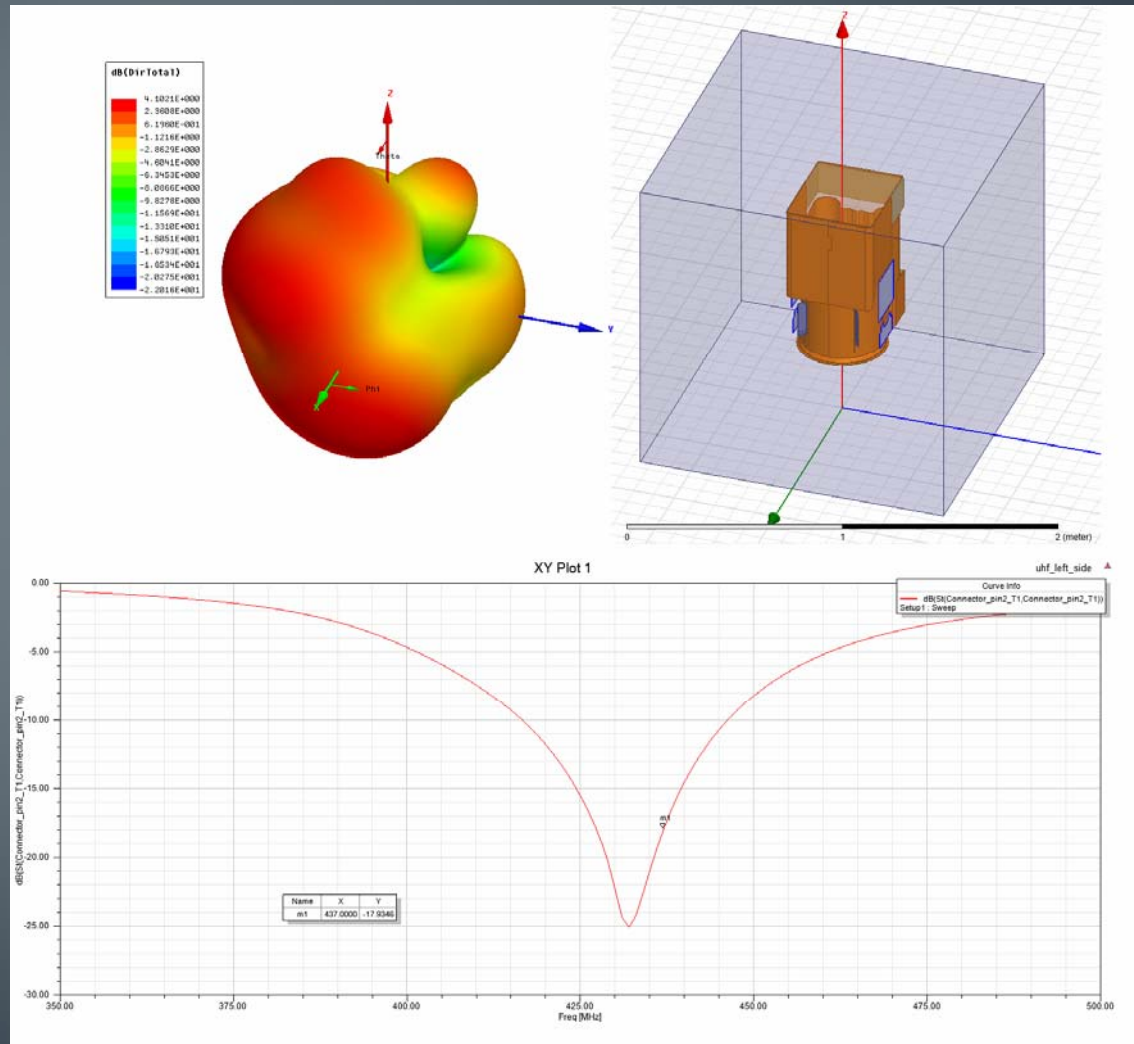


La Antena (Lugar de montaje)





La Antena



Lanzamiento (China)



El Lanzamiento

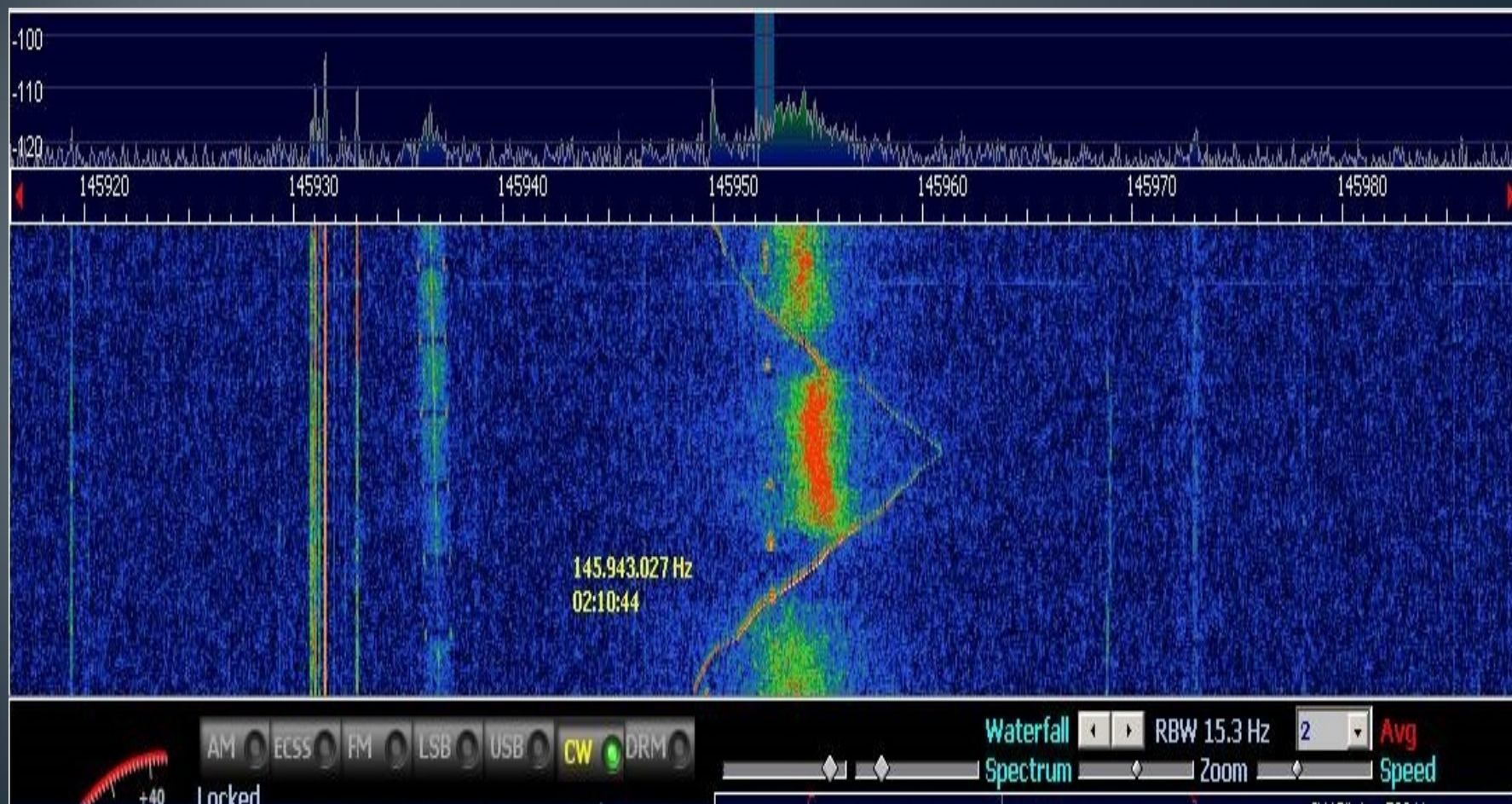


Pruebas y Operación





Pruebas y Operación



QSO en CW del 16/08/2016 a las 11:09 LU, en una pasada con inclinación máxima de 27 grados.

Conclusiones



- AMSAT propone la exploración de actividades espaciales regionales para la radioafición con experimentos abiertos a la comunidad.

Conclusiones (cont.)



foto: Satellogic

“Mucha gente con mucho esfuerzo” (E.K.)

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***Muchas gracias
73 y buenos DX, de
AMSAT-LU !***

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