

**Long, JA (Judy)****Subject:** FW: Herschel/SPIRE JFET/RF-filter rack - structure mass, spreadsheet, issue 0.1[SPIRE-MSS-COM-000751](#)

-----Original Message-----

**From:** Berend Winter [mailto:[bw@mssl.ucl.ac.uk](mailto:bw@mssl.ucl.ac.uk)]**Sent:** 09 July 2001 15:09**To:** Delderfield, J (John)**Cc:** Judy Long RAL; Bruce Swinyard RAL; Colin Cunningham ATC; Jamie Bock; gerald lilienthal; Lilienthal, Jerry (E-mail)**Subject:** Herschel/SPIRE JFET/RF-filter rack - structure mass, spreadsheet, issue 0.1

Hello John,

I had a serious look at the JFET rack both for the photometer and the spectrometer. The alternative version we discussed last week and the 'baseline' version. Mass wise for the structure it doesn't make much difference. What is gained by dropping the RF-filter modules and combining both photometer units is lost by the extra material need to support the extra JFET module enclosure. Good news is that the overall mass for the structure is not excessive.

baseline concept:                    1185 gr    (photometer and spectrometer)  
 alternative (no RF-enclosures) 1120 gr    (photometer and spectrometer)

Again this is only the mass of the 'raw structure', that is milled parts and machined sheets + fasteners. We do save mass on leaving out 3 RF-filter enclosures, but we gain a JFET enclosure.

The mass figures quoted above are including a contingency of 10%. We should not forget it doesn't include thermal insulation (if we want that) or any harness support.

The only SSSD for the BDA and JFET/RF avail to me is issue 1.0 from August last year. That issue doesn't contain any mass information for either the JFET or the RF-filter boxes. If we have that information it can be included in this spreadsheet and I will issue it as an official first issue, ok?

Cheers, Berend

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