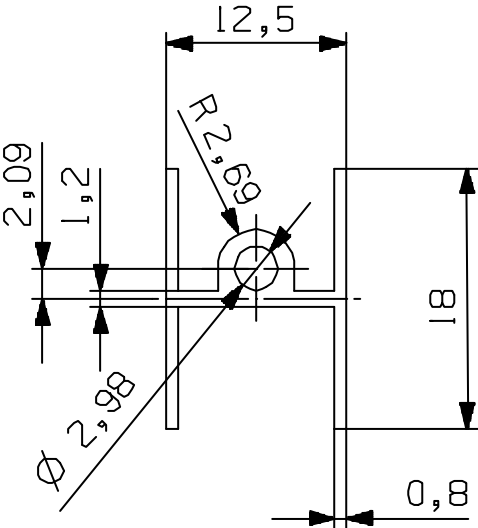

 CARLO GAVAZZI SPACE SpA		RELAZIONE DI RIUNIONE/VISITA MINUTES OF MEETING/VISIT		N°	
				FOGLIO SHEET	DI OF
DATA – DATE 14/11/01		LOCALITA' – LOCATION CERN		COMMESSA – JOB AMS02- thermal control	
RIF. - REF.		DESCRIZIONE AMS02- Thermal control Mechanical design and integration workshop DESCRIPTION		CLIENTE CUSTOMER CERN	
IMPIANTO PROJECT		LOCALITA' – LOCATION GENEVA - CERN		ORDINE CONTRACT	
SCOPO RIUNIONE PURPOSE OF MEETING		ZENITH RADIATOR		REDATTO – WRITTEN BY <u>M. MOLINA</u> DISTRIBUTION	
<p>Current mass budget for the electronic crates is 453 Kg (without cables), with potentially 50 Kg more for debris shielding (375 Kg allocated). Current radiators mass is 190 Kg (excluding ECAL and RICH crates radiators and brackets) (129 allocated)</p> <p>4.1 sq(m) are needed in zenith direction to reject 400 W at –</p> <p>No other surfaces provide such an efficient sink temperature. The following options have been foreseen for the octagonal panel</p> <p>1) 2 skins 1 mm each 80 mm core (Aluminum honeycomb, 32Kg/m³) attached to the corners</p> <p>Tubing section like in the figure</p>				<p>New mass estimates for</p> <ul style="list-style-type: none"> - zenith radiator (see option 3) - ram and wake will be provided as an output of the structural analysis. <p>AI 1 CGS to provide report on cryos radiators assessment 25/11/01</p> <p>For the crates, options to be discussed by CGS with electronic group.</p>	
(1) INDICARE IL NOMINATIVO RESPONSABILE DELL'AZIONE E DATA DI COMPLETAMENTO					

 CARLO GAVAZZI CARLO GAVAZZI SPACE SpA		RELAZIONE DI RIUNIONE/VISITA MINUTES OF MEETING/VISIT		N°	
				FOGLIO 2 SHEET	DI 2 OF
DATA – DATE 14/11/01		LOCALITA' – LOCATION GENEVA		COMMESSA – JOB AMS _ Thermal Control	
PUNTI ITEMS		ARGOMENTI DISCUSSI – DESCRIPTION OF DISCUSSION		AZIONE A CURA (1) ACTION BY (1)	

X0= 4.3% with 70 mm pitch between tubes,
 X0= 5.0% with 40 mm pitch between tubes.

2)

The same as above, but only half of the profile and Nomex honeycomb

X0= 3.6% with 70 mm pitch between tubes,
 X0= 4.1% with 40 mm pitch between tubes.

3)

- Thinner Nomex honeycomb (15 mm)
- half the profile
- skins thickness 0.5 mm each

X0= 2% with 70 mm pitch between tubes,
 X0= 2.5% with 40 mm pitch between tubes.

This honeycomb plate is supported in (N) positions to the TRD honeycomb, with spacers, in order to allow differential movement

Option 3) is the preferred solution from the structural / scientific point of view.

Aachen proposal: zenith radiator and TRD honeycomb plate modifications (to accommodate the zenith radiator) shall be under OHB responsibility including inserts for attachment to the M-structure.

AI 2
 OHB to thermally investigate the impact of this radiator on the TRD
 11/12/01

AI 3
 Structural verification by TBD on the basis of OHB input
 Due date: end of January 2002