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Subject: Re: Geometry of EMC Barrel Crystal  
Posted by [Christian Hammann](#) on Fri, 18 Sep 2009 12:13:08 GMT  
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I was looking at crystal 5 in row 1 copy 1 of module 2 which should be a type 1 crystal. These are the coordinates obtained by doing an inspect node on the root geometry created by the simulation:

Front face:

point #0 : x= -1.64783 y= -1.25634 z= -9.99926  
point #1 : x= -1.64783 y= 0.88266 z= -9.99926  
point #2 : x= 0.49055 y= 0.88266 z= -9.99926  
point #3 : x= 0.49055 y= -1.25634 z= -9.99926

Rear face:

point #4 : x= -0.88418 y= -1.25633 z= 9.99926  
point #5 : x= -0.88418 y= 1.63001 z= 9.99926  
point #6 : x= 2.04146 y= 1.63001 z= 9.99926  
point #7 : x= 2.04146 y= -1.25633 z= 9.99926

This gives a frontface of 21.4 by 21.4 mm which is about 1mm smaller than it is in the TDR. Also it should not be quadratic, (not even rectangular) according to the TDR.

The backface has a size 29.2mm by 28.9mm which more or less agrees with the TDR but it should also not be rectangular.

From the TDR I expected that 2 of the sides have a right angle with the front- and backface, also the TDR is not very clear about this. This is not true with the coordinates given above, there only 1 side has right angles with the frontface.

I have attached a view of the crystal from the simulation.

Regards

Christian

### File Attachments

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1) [mlr1c5.gif](#), downloaded 1159 times

