

## DNB\_diagnostics\_spatial\_resolutions.txt

### CXRS

#### Main plasma:

10 signal chords (and 10 background chords which are being configured right now) covering the outer half of the minor radius. Therefore, resolution = 1 cm.

#### Edge plasma:

25 vertically-viewing chords look at the pedestal region with 3 mm radial resolution.

### MSE

10 channels covering the entire minor radius; resolution = 2 cm, except near the core, where the channels have about a 45 degree angle, so central resolution is about 3 cm. We are upgrading this system right now to add 10 channels of background monitoring (same exact views as the signal channels.) We are discussing a possible upgrade to rearrange the fiber bundles into twice as many channels, so that would improve the spatial resolution by a factor of 2. (You should already have the date on this upgrade somewhere.)

### BES

9 channels which can be arranged into many different spatial configurations, spanning from the core to the SOL, and  $-9 < z < +9$  cm for beam profile measurements, and  $-6 \leq z \leq +6$  cm close-packed for  $k_{\theta}$  measurements:  $0.2 < k_{\theta} < 3$  cm<sup>-1</sup>. (Each channel has a spatial resolution of about 4 mm x 4 mm.)