

$$\delta_k = \frac{1 + \varepsilon_k}{2}$$

$$\frac{1}{(2\pi)^{rs}} \prod_{1 \leq i \leq r} \Gamma_{s - (i-1)a/2} \exp \pi i (j - r/2) s \frac{\prod_{1 \leq k \leq j} \exp \pi i \left(\frac{a}{2} (r + 1 - 2k) - s \right) \delta_k}{\prod_{j < k \leq r} \exp \pi i \left(\frac{a}{2} (r + 1 - 2j - 2k) - s \right) \delta_k}$$