$$Z_\forall \subset Z_{\forall\mathbb{C}}$$

$$r_\mathbb{C} = r\text{:} \quad a_\mathbb{C} = 2a$$

$$\mu_\mathbb{C} = 2\mu\text{:} \quad \nu_\mathbb{C} = \nu/2$$

$${}^x\Phi_\mathbb{C}^{2\mu} = {}^{x^2}\Phi^\mu$$

$$\Phi_\mathbb{C}^{2\mu} \maltese \Phi_\mathbb{C}^{2\mu} = \frac{2^{2|\mu|}}{d_X^\mu} \left(d_X/r\right)_\mu \left(d_Z/2r\right)_\mu$$

$$\frac{\Phi_\mathbb{C}^{2\mu}\maltese\Phi_\mathbb{C}^{2\mu}}{\Phi_\mathbb{C}^{2\mu}\underset{\nu}{\maltese}\Phi_\mathbb{C}^{2\mu}} = \frac{\Gamma_{\nu+2\mu}^\mathbb{C}}{\Gamma_\nu^\mathbb{C}} = \prod_j \frac{\Gamma_{\nu+2\mu_j - a_\mathbb{C}(j-1)/2}}{\Gamma_{\nu - a_\mathbb{C}(j-1)/2}}$$

$$= \prod_j \frac{\Gamma_{\nu+2\mu_j - a(j-1)}}{\Gamma_{\nu - a(j-1)}} = \prod_j \frac{\Gamma_{2\left(\nu/2 + \mu_j - a(j-1)/2\right)}}{\Gamma_{2(\nu/2 - a(j-1)/2)}}$$

$$= \prod_j \frac{2^{2\mu_j}\Gamma_{\nu/2+\mu_j - a(j-1)/2}\Gamma_{1/2+\nu/2+\mu_j - a(j-1)/2}}{\Gamma_{\nu/2 - a(j-1)/2}\Gamma_{1/2+\nu/2 - a(j-1)/2}} = 2^{2|\mu|} \left(\frac{\nu}{2}\right)_\mu \left(\frac{\nu+1}{2}\right)_\mu$$