$$
\begin{aligned}
&Y_d^{i1\_i2\_} \to \\
&c_\gamma\, y_d^{i1i2} + \hbar \Big(\tfrac{1}{144}\, c_\gamma\, \tfrac{1}{m_\oplus^2} \Big(m_\oplus^2\, y_d^{i1i2} \big(96\, g_3^2 + 27\, g_2^2 \big(1 + 2\, c_\gamma^2 + 2\, s_\gamma^2 \big) + g_1^2 \big(5 + 18\, c_\gamma^2 + 18\, s_\gamma^2 \big) \big) + \\
&\quad 54\, \overline{y_d}^{pr} \big(m_\oplus^2\, y_d^{pi2}\, y_d^{i1r} \big(1 + s_\gamma^2 \big) + 4\, m_H^2\, s_\gamma^2\, y_d^{pr}\, y_d^{i1i2} \big) + \\
&\quad 18\, y_d^{pi2}\, \overline{y_u}^{pr}\, y_u^{i1r} \big(m_\oplus^2 \big(1 + c_\gamma^2 \big) + 2\, m_H^2\, s_\gamma^2 \big) \Big) - \tfrac{1}{2} \sum\nolimits_p s_{2\gamma}\, s_\gamma\, g_1^2\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \\
&\quad \big(m_H^2 + m_\oplus^2 \big)\, LF_{1,0}\big[m_{\tilde d}^{\,p} \big] + \tfrac{3}{2}\, s_{2\gamma}\, s_\gamma\, \tfrac{1}{m_\oplus^4}\, \overline{y_d}^{pr}\, y_d^{pr}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big)\, LF_{1,0}\big[m_{\tilde d}^{\,r} \big] - \\
&\tfrac{1}{2} \sum\nolimits_p s_{2\gamma}\, s_\gamma\, g_1^2\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big)\, LF_{1,0}\big[m_{\tilde e}^{\,p} \big] + \tfrac{1}{2}\, s_{2\gamma}\, s_\gamma\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2}\, \overline{y_e}^{pr}\, y_e^{pr} \\
&\quad \big(m_H^2 + m_\oplus^2 \big)\, LF_{1,0}\big[m_{\tilde e}^{\,r} \big] + \tfrac{1}{2}\, s_{2\gamma}\, s_\gamma\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big) \big(\overline{y_e}^{pr}\, y_e^{pr} + \sum\nolimits_p g_1^2 \big)\, LF_{1,0}\big[m_{\tilde l}^{\,p} \big] - \\
&\tfrac{1}{2}\, s_{2\gamma}\, s_\gamma\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big) \big(-3\, \overline{y_d}^{pr}\, y_d^{pr} + 3\, \overline{y_u}^{pr}\, y_u^{pr} + \sum\nolimits_p g_1^2 \big)\, LF_{1,0}\big[m_{\tilde q}^{\,p} \big] + \\
&\sum\nolimits_p s_{2\gamma}\, s_\gamma\, g_1^2\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big)\, LF_{1,0}\big[m_{\tilde u}^{\,p} \big] - \\
&\tfrac{3}{2}\, s_{2\gamma}\, s_\gamma\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2}\, \overline{y_u}^{pr}\, y_u^{pr} \big(m_H^2 + m_\oplus^2 \big)\, LF_{1,0}\big[m_{\tilde u}^{\,r} \big] - \\
&\tfrac{3}{8}\, s_{4\gamma}\, s_\gamma\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(g_1^2 + g_2^2 \big) \big(m_H^2 + m_\oplus^2 \big)\, LF_{1,0}[m_\oplus] - \\
&\tfrac{1}{4}\, c_\gamma\, y_d^{pi2} \big(3\, s_\gamma^2\, \overline{y_d}^{pr}\, y_d^{i1r} + \overline{y_u}^{pr}\, y_u^{i1r} \big(c_\gamma^2 + 4\, s_\gamma^2 \big) \big)\, LF_{1,1}[m_\oplus] + \\
&\tfrac{1}{2}\, m_H^2\, c_\gamma\, s_\gamma^2\, y_d^{pi2}\, \overline{y_u}^{pr}\, y_u^{i1r}\, LF_{1,2}[m_\oplus] - \tfrac{1}{9}\, c_\gamma\, g_1^2\, y_d^{i1i2}\, LF_{1,1,0}\big[m_1, m_{\tilde d}^{\,i2} \big] + \\
&\tfrac{1}{18}\, c_\gamma\, g_1^2\, y_d^{i1i2}\, LF_{2,1,-1}\big[m_1, m_{\tilde d}^{\,i2} \big] - \tfrac{1}{36}\, c_\gamma\, g_1^2\, y_d^{i1i2}\, LF_{1,1,0}\big[m_1, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{1}{72}\, c_\gamma\, g_1^2\, y_d^{i1i2}\, LF_{2,1,-1}\big[m_1, m_{\tilde q}^{\,i1} \big] + m_1\, s_\gamma\, \tilde\mu\, g_1^2\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big) \big(c_\gamma^2 - s_\gamma^2 \big)\, LF_{1,1,0}[m_1, \tilde\mu] - \\
&\tfrac{3}{4}\, c_\gamma\, g_2^2\, y_d^{i1i2}\, LF_{1,1,0}\big[m_2, m_{\tilde q}^{\,i1} \big] + \tfrac{3}{8}\, c_\gamma\, g_2^2\, y_d^{i1i2}\, LF_{2,1,-1}\big[m_2, m_{\tilde q}^{\,i1} \big] + \\
&3\, m_2\, s_\gamma\, \tilde\mu\, g_2^2\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big) \big(c_\gamma^2 - s_\gamma^2 \big)\, LF_{1,1,0}[m_2, \tilde\mu] - \\
&\tfrac{4}{3}\, c_\gamma\, g_3^2\, y_d^{i1i2}\, LF_{1,1,0}\big[m_3, m_{\tilde d}^{\,i2} \big] + \tfrac{2}{3}\, c_\gamma\, g_3^2\, y_d^{i1i2}\, LF_{2,1,-1}\big[m_3, m_{\tilde d}^{\,i2} \big] - \\
&\tfrac{4}{3}\, c_\gamma\, g_3^2\, y_d^{i1i2}\, LF_{1,1,0}\big[m_3, m_{\tilde q}^{\,i1} \big] + \tfrac{2}{3}\, c_\gamma\, g_3^2\, y_d^{i1i2}\, LF_{2,1,-1}\big[m_3, m_{\tilde q}^{\,i1} \big] + \\
&3\, s_\gamma\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big) \big(s_\gamma\, \overline{a_d}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_d}^{pr} \big) \big(c_\gamma\, a_d^{pr} - s_\gamma\, \tilde\mu\, y_d^{pr} \big)\, LF_{1,1,0}\big[m_{\tilde d}^{\,r}, m_{\tilde q}^{\,p} \big] - \\
&\tfrac{1}{2}\, c_\gamma\, \overline{y_d}^{pr}\, y_d^{pi2}\, y_d^{i1r}\, LF_{1,1,0}\big[m_{\tilde d}^{\,r}, \tilde\mu \big] + \\
&s_\gamma\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big) \big(s_\gamma\, \overline{a_e}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_e}^{pr} \big) \big(c_\gamma\, a_e^{pr} - s_\gamma\, \tilde\mu\, y_e^{pr} \big)\, LF_{1,1,0}\big[m_{\tilde e}^{\,r}, m_{\tilde l}^{\,p} \big] + \tfrac{1}{2}\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \\
&\quad \big(\overline{a_e}^{pr} \big(m_\oplus^2\, c_\gamma^2 - 2\, m_H^2\, s_\gamma^2 \big) - s_\gamma\, \tilde\mu\, c_\gamma\, \overline{y_e}^{pr} \big(2\, m_H^2 + m_\oplus^2 \big) \big) \big(c_\gamma\, a_e^{pr} - s_\gamma\, \tilde\mu\, y_e^{pr} \big)\, LF_{2,1,0}\big[m_{\tilde l}^{\,p}, m_{\tilde e}^{\,r} \big] - \\
&\tfrac{1}{2}\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \big(\overline{a_e}^{pr} \big(m_\oplus^2\, c_\gamma^2 - 2\, m_H^2\, s_\gamma^2 \big) - s_\gamma\, \tilde\mu\, c_\gamma\, \overline{y_e}^{pr} \big(2\, m_H^2 + m_\oplus^2 \big) \big) \big(c_\gamma\, a_e^{pr} - s_\gamma\, \tilde\mu\, y_e^{pr} \big) \\
&\quad LF_{3,1,-1}\big[m_{\tilde l}^{\,p}, m_{\tilde e}^{\,r} \big] - m_H^2\, c_\gamma\, y_d^{i1i2} \big(c_\gamma\, \overline{a_e}^{pr} - s_\gamma\, \tilde\mu\, \overline{y_e}^{pr} \big) \big(c_\gamma\, a_e^{pr} - s_\gamma\, \tilde\mu\, y_e^{pr} \big)\, LF_{3,1,0}\big[m_{\tilde l}^{\,p}, m_{\tilde e}^{\,r} \big] + \\
&3\, m_H^2\, c_\gamma\, y_d^{i1i2} \big(c_\gamma\, \overline{a_e}^{pr} - s_\gamma\, \tilde\mu\, \overline{y_e}^{pr} \big) \big(c_\gamma\, a_e^{pr} - s_\gamma\, \tilde\mu\, y_e^{pr} \big)\, LF_{4,1,-1}\big[m_{\tilde l}^{\,p}, m_{\tilde e}^{\,r} \big] - \\
&2\, m_H^2\, c_\gamma\, y_d^{i1i2} \big(c_\gamma\, \overline{a_e}^{pr} - s_\gamma\, \tilde\mu\, \overline{y_e}^{pr} \big) \big(c_\gamma\, a_e^{pr} - s_\gamma\, \tilde\mu\, y_e^{pr} \big)\, LF_{5,1,-2}\big[m_{\tilde l}^{\,p}, m_{\tilde e}^{\,r} \big] + \tfrac{3}{2}\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \\
&\quad \big(\overline{a_d}^{pr} \big(m_\oplus^2\, c_\gamma^2 - 2\, m_H^2\, s_\gamma^2 \big) - s_\gamma\, \tilde\mu\, c_\gamma\, \overline{y_d}^{pr} \big(2\, m_H^2 + m_\oplus^2 \big) \big) \big(c_\gamma\, a_d^{pr} - s_\gamma\, \tilde\mu\, y_d^{pr} \big)\, LF_{2,1,0}\big[m_{\tilde q}^{\,p}, m_{\tilde d}^{\,r} \big] - \\
&\tfrac{3}{2}\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \big(\overline{a_d}^{pr} \big(m_\oplus^2\, c_\gamma^2 - 2\, m_H^2\, s_\gamma^2 \big) - s_\gamma\, \tilde\mu\, c_\gamma\, \overline{y_d}^{pr} \big(2\, m_H^2 + m_\oplus^2 \big) \big) \big(c_\gamma\, a_d^{pr} - s_\gamma\, \tilde\mu\, y_d^{pr} \big) \\
&\quad LF_{3,1,-1}\big[m_{\tilde q}^{\,p}, m_{\tilde d}^{\,r} \big] - 3\, m_H^2\, c_\gamma\, y_d^{i1i2} \big(c_\gamma\, \overline{a_d}^{pr} - s_\gamma\, \tilde\mu\, \overline{y_d}^{pr} \big) \big(c_\gamma\, a_d^{pr} - s_\gamma\, \tilde\mu\, y_d^{pr} \big)\, LF_{3,1,0}\big[m_{\tilde q}^{\,p}, m_{\tilde d}^{\,r} \big] + \\
&9\, m_H^2\, c_\gamma\, y_d^{i1i2} \big(c_\gamma\, \overline{a_d}^{pr} - s_\gamma\, \tilde\mu\, \overline{y_d}^{pr} \big) \big(c_\gamma\, a_d^{pr} - s_\gamma\, \tilde\mu\, y_d^{pr} \big)\, LF_{4,1,-1}\big[m_{\tilde q}^{\,p}, m_{\tilde d}^{\,r} \big] - \\
&6\, m_H^2\, c_\gamma\, y_d^{i1i2} \big(c_\gamma\, \overline{a_d}^{pr} - s_\gamma\, \tilde\mu\, \overline{y_d}^{pr} \big) \big(c_\gamma\, a_d^{pr} - s_\gamma\, \tilde\mu\, y_d^{pr} \big)\, LF_{5,1,-2}\big[m_{\tilde q}^{\,p}, m_{\tilde d}^{\,r} \big] - \\
&3\, s_\gamma\, \tfrac{1}{m_\oplus^4}\, y_d^{i1i2} \big(m_H^2 + m_\oplus^2 \big) \big(s_\gamma\, \overline{a_u}^{pr} - \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big) \big(c_\gamma\, a_u^{pr} + s_\gamma\, \tilde\mu\, y_u^{pr} \big)\, LF_{1,1,0}\big[m_{\tilde q}^{\,p}, m_{\tilde u}^{\,r} \big] - \\
&c_\gamma\, \overline{y_d}^{pr}\, y_d^{pi2}\, y_d^{i1r}\, LF_{1,1,0}\big[m_{\tilde q}^{\,p}, \tilde\mu \big] + \tfrac{3}{2}\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \big(s_\gamma\, \overline{a_u}^{pr} - \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big) \\
&\quad \big(s_\gamma\, c_\gamma\, a_u^{pr} \big(2\, m_H^2 + m_\oplus^2 \big) + \tilde\mu\, y_u^{pr} \big(-m_\oplus^2\, c_\gamma^2 + 2\, m_H^2\, s_\gamma^2 \big) \big)\, LF_{2,1,0}\big[m_{\tilde u}^{\,r}, m_{\tilde q}^{\,p} \big] - \tfrac{3}{2}\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \\
&\quad \big(s_\gamma\, \overline{a_u}^{pr} - \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big) \big(s_\gamma\, c_\gamma\, a_u^{pr} \big(2\, m_H^2 + m_\oplus^2 \big) + \tilde\mu\, y_u^{pr} \big(-m_\oplus^2\, c_\gamma^2 + 2\, m_H^2\, s_\gamma^2 \big) \big)\, LF_{3,1,-1}\big[m_{\tilde u}^{\,r}, m_{\tilde q}^{\,p} \big] - \\
&3\, m_H^2\, c_\gamma\, y_d^{i1i2} \big(-s_\gamma\, \overline{a_u}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big) \big(-s_\gamma\, a_u^{pr} + \tilde\mu\, c_\gamma\, y_u^{pr} \big)\, LF_{3,1,0}\big[m_{\tilde u}^{\,r}, m_{\tilde q}^{\,p} \big] + \\
&9\, m_H^2\, c_\gamma\, y_d^{i1i2} \big(-s_\gamma\, \overline{a_u}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big) \big(-s_\gamma\, a_u^{pr} + \tilde\mu\, c_\gamma\, y_u^{pr} \big)\, LF_{4,1,-1}\big[m_{\tilde u}^{\,r}, m_{\tilde q}^{\,p} \big] - \\
&6\, m_H^2\, c_\gamma\, y_d^{i1i2} \big(-s_\gamma\, \overline{a_u}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big) \big(-s_\gamma\, a_u^{pr} + \tilde\mu\, c_\gamma\, y_u^{pr} \big)\, LF_{5,1,-2}\big[m_{\tilde u}^{\,r}, m_{\tilde q}^{\,p} \big] - \\
&\tfrac{1}{2}\, c_\gamma\, y_d^{pi2}\, \overline{y_u}^{pr}\, y_u^{i1r}\, LF_{1,1,0}\big[m_{\tilde u}^{\,r}, \tilde\mu \big] - \tfrac{3}{4}\, c_\gamma\, g_1^2\, y_d^{i1i2} \big(c_\gamma^2 + s_\gamma^2 \big)\, LF_{2,1,-1}[\tilde\mu, m_1] + \\
&m_1\, s_\gamma\, \tilde\mu\, g_1^2\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \big(-c_\gamma^2 \big(m_H^2 + m_\oplus^2 \big) + m_H^2\, s_\gamma^2 \big)\, LF_{2,1,0}[\tilde\mu, m_1] + \\
&\tfrac{1}{2}\, c_\gamma\, g_1^2\, y_d^{i1i2} \big(c_\gamma^2 + s_\gamma^2 \big)\, LF_{3,1,-2}[\tilde\mu, m_1] + \\
&g_1^2\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \big(2\, m_H^2\, c_\gamma\, m_\oplus^2 \big(c_\gamma^2 + s_\gamma^2 \big) + m_1\, s_\gamma\, \tilde\mu \big(c_\gamma^2 \big(m_H^2 + m_\oplus^2 \big) - m_H^2\, s_\gamma^2 \big) \big)\, LF_{3,1,-1}[\tilde\mu, m_1] + \\
&2\, m_1\, m_H^2\, s_\gamma\, \tilde\mu\, g_1^2\, c_\gamma^2\, y_d^{i1i2}\, LF_{3,1,0}[\tilde\mu, m_1] - 4\, m_H^2\, c_\gamma\, g_1^2\, y_d^{i1i2} \big(c_\gamma^2 + s_\gamma^2 \big)\, LF_{4,1,-2}[\tilde\mu, m_1] - \\
&6\, m_1\, m_H^2\, s_\gamma\, \tilde\mu\, g_1^2\, c_\gamma^2\, y_d^{i1i2}\, LF_{4,1,-1}[\tilde\mu, m_1] + 2\, m_H^2\, c_\gamma\, g_1^2\, y_d^{i1i2} \big(c_\gamma^2 + s_\gamma^2 \big)\, LF_{5,1,-3}[\tilde\mu, m_1] + \\
&4\, m_1\, m_H^2\, s_\gamma\, \tilde\mu\, g_1^2\, c_\gamma^2\, y_d^{i1i2}\, LF_{5,1,-2}[\tilde\mu, m_1] - \tfrac{9}{4}\, c_\gamma\, g_2^2\, y_d^{i1i2} \big(c_\gamma^2 + s_\gamma^2 \big)\, LF_{2,1,-1}[\tilde\mu, m_2] - \\
&3\, m_2\, s_\gamma\, \tilde\mu\, g_2^2\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \big(c_\gamma^2 \big(m_H^2 + m_\oplus^2 \big) - m_H^2\, s_\gamma^2 \big)\, LF_{2,1,0}[\tilde\mu, m_2] + \\
&\tfrac{3}{2}\, c_\gamma\, g_2^2\, y_d^{i1i2} \big(c_\gamma^2 + s_\gamma^2 \big)\, LF_{3,1,-2}[\tilde\mu, m_2] + \\
&3\, g_2^2\, \tfrac{1}{m_\oplus^2}\, y_d^{i1i2} \big(2\, m_H^2\, c_\gamma\, m_\oplus^2 \big(c_\gamma^2 + s_\gamma^2 \big) + m_2\, s_\gamma\, \tilde\mu \big(c_\gamma^2 \big(m_H^2 + m_\oplus^2 \big) - m_H^2\, s_\gamma^2 \big) \big)\, LF_{3,1,-1}[\tilde\mu, m_2] + \\
&6\, m_2\, m_H^2\, s_\gamma\, \tilde\mu\, g_2^2\, c_\gamma^2\, y_d^{i1i2}\, LF_{3,1,0}[\tilde\mu, m_2] - 12\, m_H^2\, c_\gamma\, g_2^2\, y_d^{i1i2} \big(c_\gamma^2 + s_\gamma^2 \big)\, LF_{4,1,-2}[\tilde\mu, m_2] - \\
&18\, m_2\, m_H^2\, s_\gamma\, \tilde\mu\, g_2^2\, c_\gamma^2\, y_d^{i1i2}\, LF_{4,1,-1}[\tilde\mu, m_2] + 6\, m_H^2\, c_\gamma\, g_2^2\, y_d^{i1i2} \big(c_\gamma^2 + s_\gamma^2 \big)\, LF_{5,1,-3}[\tilde\mu, m_2] + \\
&12\, m_2\, m_H^2\, s_\gamma\, \tilde\mu\, g_2^2\, c_\gamma^2\, y_d^{i1i2}\, LF_{5,1,-2}[\tilde\mu, m_2] + \tfrac{1}{4}\, c_\gamma\, \overline{y_d}^{pr}\, y_d^{pi2}\, y_d^{i1r}\, LF_{2,1,-1}\big[\tilde\mu, m_{\tilde d}^{\,r} \big] + \\
&\tfrac{1}{2}\, c_\gamma\, \overline{y_d}^{pr}\, y_d^{pi2}\, y_d^{i1r}\, LF_{2,1,-1}\big[\tilde\mu, m_{\tilde q}^{\,p} \big] + \tfrac{1}{4}\, c_\gamma\, y_d^{pi2}\, \overline{y_u}^{pr}\, y_u^{i1r}\, LF_{2,1,-1}\big[\tilde\mu, m_{\tilde u}^{\,r} \big] + \\
&\tfrac{1}{9}\, m_1\, g_1^2 \big(-c_\gamma\, a_d^{i1i2} + s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{1,1,1,0}\big[m_1, m_{\tilde d}^{\,i2}, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{1}{36}\, m_1\, m_H^2\, g_1^2 \big(-c_\gamma\, a_d^{i1i2} + s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{2,2,1,-1}\big[m_1, m_{\tilde d}^{\,i2}, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{1}{3}\, c_\gamma\, g_1^2\, y_d^{i1i2}\, LF_{1,1,1,-1}\big[m_1, m_{\tilde d}^{\,i2}, \tilde\mu \big] + \tfrac{1}{3}\, m_1\, s_\gamma\, \tilde\mu\, g_1^2\, y_d^{i1i2}\, LF_{1,1,1,0}\big[m_1, m_{\tilde d}^{\,i2}, \tilde\mu \big] + \\
&\tfrac{1}{36}\, m_1\, m_H^2\, g_1^2 \big(-c_\gamma\, a_d^{i1i2} + s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{2,2,1,-1}\big[m_1, m_{\tilde q}^{\,i1}, m_{\tilde d}^{\,i2} \big] + \\
&\tfrac{1}{6}\, c_\gamma\, g_1^2\, y_d^{i1i2}\, LF_{1,1,1,-1}\big[m_1, m_{\tilde q}^{\,i1}, \tilde\mu \big] + \tfrac{1}{6}\, m_1\, s_\gamma\, \tilde\mu\, g_1^2\, y_d^{i1i2}\, LF_{1,1,1,0}\big[m_1, m_{\tilde q}^{\,i1}, \tilde\mu \big] - \\
&\tfrac{1}{6}\, m_H^2\, c_\gamma\, g_1^2\, y_d^{i1i2}\, LF_{2,2,1,-2}\big[m_1, \tilde\mu, m_{\tilde d}^{\,i2} \big] - \tfrac{1}{6}\, m_1\, m_H^2\, s_\gamma\, \tilde\mu\, g_1^2\, y_d^{i1i2}\, LF_{2,2,1,-1}\big[m_1, \tilde\mu, m_{\tilde d}^{\,i2} \big] - \\
&\tfrac{1}{12}\, m_H^2\, c_\gamma\, g_1^2\, y_d^{i1i2}\, LF_{2,2,1,-2}\big[m_1, \tilde\mu, m_{\tilde q}^{\,i1} \big] - \tfrac{1}{12}\, m_1\, m_H^2\, s_\gamma\, \tilde\mu\, g_1^2\, y_d^{i1i2}\, LF_{2,2,1,-1}\big[m_1, \tilde\mu, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{3}{2}\, c_\gamma\, g_2^2\, y_d^{i1i2}\, LF_{1,1,1,-1}\big[m_2, m_{\tilde q}^{\,i1}, \tilde\mu \big] + \tfrac{3}{2}\, m_2\, s_\gamma\, \tilde\mu\, g_2^2\, y_d^{i1i2}\, LF_{1,1,1,0}\big[m_2, m_{\tilde q}^{\,i1}, \tilde\mu \big] - \\
&\tfrac{3}{4}\, m_H^2\, c_\gamma\, g_2^2\, y_d^{i1i2}\, LF_{2,2,1,-2}\big[m_2, \tilde\mu, m_{\tilde q}^{\,i1} \big] - \tfrac{3}{4}\, m_2\, m_H^2\, s_\gamma\, \tilde\mu\, g_2^2\, y_d^{i1i2}\, LF_{2,2,1,-1}\big[m_2, \tilde\mu, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{8}{3}\, m_3\, g_3^2 \big(c_\gamma\, a_d^{i1i2} - s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{1,1,1,0}\big[m_3, m_{\tilde d}^{\,i2}, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{2}{3}\, m_3\, m_H^2\, g_3^2 \big(c_\gamma\, a_d^{i1i2} - s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{2,2,1,-1}\big[m_3, m_{\tilde d}^{\,i2}, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{2}{3}\, m_3\, m_H^2\, g_3^2 \big(c_\gamma\, a_d^{i1i2} - s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{2,2,1,-1}\big[m_3, m_{\tilde q}^{\,i1}, m_{\tilde d}^{\,i2} \big] + \\
&\tfrac{1}{18}\, m_1\, m_H^2\, g_1^2 \big(c_\gamma\, a_d^{i1i2} - s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{2,1,1,0}\big[m_{\tilde d}^{\,i2}, m_1, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{1}{18}\, m_1\, m_H^2\, g_1^2 \big(-c_\gamma\, a_d^{i1i2} + s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{3,1,1,-1}\big[m_{\tilde d}^{\,i2}, m_1, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{4}{3}\, m_3\, m_H^2\, g_3^2 \big(-c_\gamma\, a_d^{i1i2} + s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{2,1,1,0}\big[m_{\tilde d}^{\,i2}, m_3, m_{\tilde q}^{\,i1} \big] + \\
&\tfrac{4}{3}\, m_3\, m_H^2\, g_3^2 \big(c_\gamma\, a_d^{i1i2} - s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{3,1,1,-1}\big[m_{\tilde d}^{\,i2}, m_3, m_{\tilde q}^{\,i1} \big] + \\
&\tilde\mu\, y_d^{pi2}\, y_u^{i1r} \big(-s_\gamma\, \overline{a_u}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big)\, LF_{1,1,1,0}\big[m_{\tilde q}^{\,p}, m_{\tilde u}^{\,r}, \tilde\mu \big] + \\
&\tfrac{1}{2}\, m_H^2\, \tilde\mu\, y_d^{pi2}\, y_u^{i1r} \big(s_\gamma\, \overline{a_u}^{pr} - \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big)\, LF_{2,1,1,0}\big[m_{\tilde q}^{\,p}, m_{\tilde u}^{\,r}, \tilde\mu \big] + \\
&\tfrac{1}{2}\, m_H^2\, \tilde\mu\, y_d^{pi2}\, y_u^{i1r} \big(-s_\gamma\, \overline{a_u}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big)\, LF_{3,1,1,-1}\big[m_{\tilde q}^{\,p}, m_{\tilde u}^{\,r}, \tilde\mu \big] + \\
&\tfrac{1}{4}\, m_H^2\, \tilde\mu\, y_d^{pi2}\, y_u^{i1r} \big(-s_\gamma\, \overline{a_u}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big)\, LF_{2,2,1,-1}\big[m_{\tilde q}^{\,p}, \tilde\mu, m_{\tilde u}^{\,r} \big] + \\
&\tfrac{1}{18}\, m_1\, m_H^2\, g_1^2 \big(c_\gamma\, a_d^{i1i2} - s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{2,1,1,0}\big[m_{\tilde q}^{\,i1}, m_1, m_{\tilde d}^{\,i2} \big] + \\
&\tfrac{1}{18}\, m_1\, m_H^2\, g_1^2 \big(-c_\gamma\, a_d^{i1i2} + s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{3,1,1,-1}\big[m_{\tilde q}^{\,i1}, m_1, m_{\tilde d}^{\,i2} \big] + \\
&\tfrac{4}{3}\, m_3\, m_H^2\, g_3^2 \big(-c_\gamma\, a_d^{i1i2} + s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{2,1,1,0}\big[m_{\tilde q}^{\,i1}, m_3, m_{\tilde d}^{\,i2} \big] + \\
&\tfrac{4}{3}\, m_3\, m_H^2\, g_3^2 \big(c_\gamma\, a_d^{i1i2} - s_\gamma\, \tilde\mu\, y_d^{i1i2} \big)\, LF_{3,1,1,-1}\big[m_{\tilde q}^{\,i1}, m_3, m_{\tilde d}^{\,i2} \big] + \\
&\tfrac{1}{2}\, m_H^2\, \tilde\mu\, y_d^{pi2}\, y_u^{i1r} \big(s_\gamma\, \overline{a_u}^{pr} - \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big)\, LF_{2,1,1,0}\big[m_{\tilde u}^{\,r}, m_{\tilde q}^{\,p}, \tilde\mu \big] + \\
&\tfrac{1}{2}\, m_H^2\, \tilde\mu\, y_d^{pi2}\, y_u^{i1r} \big(-s_\gamma\, \overline{a_u}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big)\, LF_{3,1,1,-1}\big[m_{\tilde u}^{\,r}, m_{\tilde q}^{\,p}, \tilde\mu \big] + \\
&\tfrac{1}{4}\, m_H^2\, \tilde\mu\, y_d^{pi2}\, y_u^{i1r} \big(-s_\gamma\, \overline{a_u}^{pr} + \tilde\mu\, c_\gamma\, \overline{y_u}^{pr} \big)\, LF_{2,2,1,-1}\big[m_{\tilde u}^{\,r}, \tilde\mu, m_{\tilde q}^{\,p} \big] \Big)
\end{aligned}
$$