$$
\begin{aligned}
C_{\mathrm{dW}}{}^{\mathtt{i1\_i2\_}} \to\ & \frac{1}{16\,\pi^2}\left(-\frac{1}{48}\,g_2\,c_\gamma\,\frac{1}{m_{\tilde{\Phi}^2}}\left(s_\gamma^2\,\overline{y_d}^{\mathtt{pr}}\left(y_d{}^{\mathtt{pi2}}\,y_d{}^{\mathtt{i1r}}+18\,y_d{}^{\mathtt{pr}}\,y_d{}^{\mathtt{i1i2}}\right)+y_d{}^{\mathtt{pi2}}\,\overline{y_u}^{\mathtt{pr}}\,y_u{}^{\mathtt{i1r}}\left(c_\gamma^2+3\,s_\gamma^2\right)\right)+ \right. \\[4pt]
& \frac{1}{8}\,g_2\,c_\gamma\,s_\gamma^2\,y_d{}^{\mathtt{pi2}}\,\overline{y_u}^{\mathtt{pr}}\,y_u{}^{\mathtt{i1r}}\,\mathsf{LF}_{1,2}\left[m_{\tilde{\Phi}}\right]+\frac{1}{144}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,0}\left[m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]- \\[4pt]
& \frac{1}{72}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{3,1,-1}\left[m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+\frac{1}{144}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{4,1,-2}\left[m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]- \\[4pt]
& \frac{1}{16}\,c_\gamma\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,0}\left[m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]-\frac{1}{8}\,c_\gamma\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{3,1,-1}\left[m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{3}{16}\,c_\gamma\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{4,1,-2}\left[m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+\frac{1}{3}\,g_2\,c_\gamma\,g_3{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,0}\left[m_3,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]- \\[4pt]
& \frac{2}{3}\,g_2\,c_\gamma\,g_3{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{3,1,-1}\left[m_3,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+\frac{1}{3}\,g_2\,c_\gamma\,g_3{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{4,1,-2}\left[m_3,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]- \\[4pt]
& \frac{1}{8}\,g_2\,c_\gamma\,\overline{y_d}^{\mathtt{pr}}\,y_d{}^{\mathtt{pi2}}\,y_d{}^{\mathtt{i1r}}\,\mathsf{LF}_{3,1,-1}\left[\tilde{\mu},\,m_{\tilde{d}}{}^{\mathtt{r}}\right]+\frac{1}{8}\,g_2\,c_\gamma\,\overline{y_d}^{\mathtt{pr}}\,y_d{}^{\mathtt{pi2}}\,y_d{}^{\mathtt{i1r}}\,\mathsf{LF}_{4,1,-2}\left[\tilde{\mu},\,m_{\tilde{d}}{}^{\mathtt{r}}\right]- \\[4pt]
& \frac{1}{8}\,g_2\,c_\gamma\,y_d{}^{\mathtt{pi2}}\,\overline{y_u}^{\mathtt{pr}}\,y_u{}^{\mathtt{i1r}}\,\mathsf{LF}_{3,1,-1}\left[\tilde{\mu},\,m_{\tilde{u}}{}^{\mathtt{r}}\right]+\frac{1}{8}\,g_2\,c_\gamma\,y_d{}^{\mathtt{pi2}}\,\overline{y_u}^{\mathtt{pr}}\,y_u{}^{\mathtt{i1r}}\,\mathsf{LF}_{4,1,-2}\left[\tilde{\mu},\,m_{\tilde{u}}{}^{\mathtt{r}}\right]+ \\[4pt]
& \frac{1}{72}\,g_2\,m_1\,g_1{}^2\left(c_\gamma\,a_d{}^{\mathtt{i1i2}}-s_\gamma\,\tilde{\mu}\,y_d{}^{\mathtt{i1i2}}\right)\mathsf{LF}_{2,1,1,0}\left[m_1,\,m_{\tilde{d}}{}^{\mathtt{i2}},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{144}\,g_2\,m_1\,g_1{}^2\left(-c_\gamma\,a_d{}^{\mathtt{i1i2}}+s_\gamma\,\tilde{\mu}\,y_d{}^{\mathtt{i1i2}}\right)\mathsf{LF}_{2,2,1,-1}\left[m_1,\,m_{\tilde{d}}{}^{\mathtt{i2}},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{72}\,g_2\,m_1\,g_1{}^2\left(-c_\gamma\,a_d{}^{\mathtt{i1i2}}+s_\gamma\,\tilde{\mu}\,y_d{}^{\mathtt{i1i2}}\right)\mathsf{LF}_{3,1,1,-1}\left[m_1,\,m_{\tilde{d}}{}^{\mathtt{i2}},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{144}\,g_2\,m_1\,g_1{}^2\left(c_\gamma\,a_d{}^{\mathtt{i1i2}}-s_\gamma\,\tilde{\mu}\,y_d{}^{\mathtt{i1i2}}\right)\mathsf{LF}_{2,2,1,-1}\left[m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,m_{\tilde{d}}{}^{\mathtt{i2}}\right]+ \\[4pt]
& \frac{1}{24}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{1,1,1,0}\left[m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]-\frac{1}{12}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,1,-1}\left[m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]- \\[4pt]
& \frac{1}{24}\,g_2\,m_1\,s_\gamma\,\tilde{\mu}\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,1,0}\left[m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]+\frac{1}{24}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{3,1,1,-2}\left[m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]+ \\[4pt]
& \frac{1}{24}\,g_2\,m_1\,s_\gamma\,\tilde{\mu}\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{3,1,1,-1}\left[m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]+\frac{1}{24}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,2,1,-2}\left[m_1,\,\tilde{\mu},\,m_{\tilde{d}}{}^{\mathtt{i2}}\right]+ \\[4pt]
& \frac{1}{24}\,g_2\,m_1\,s_\gamma\,\tilde{\mu}\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,2,1,-1}\left[m_1,\,\tilde{\mu},\,m_{\tilde{d}}{}^{\mathtt{i2}}\right]+\frac{1}{48}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,2,1,-2}\left[m_1,\,\tilde{\mu},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{48}\,g_2\,m_1\,s_\gamma\,\tilde{\mu}\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,2,1,-1}\left[m_1,\,\tilde{\mu},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]-\frac{1}{8}\,c_\gamma\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{1,1,1,0}\left[m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]- \\[4pt]
& \frac{1}{4}\,c_\gamma\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,1,-1}\left[m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]+\frac{1}{8}\,m_2\,s_\gamma\,\tilde{\mu}\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,1,0}\left[m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]+ \\[4pt]
& \frac{3}{8}\,c_\gamma\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{3,1,1,-2}\left[m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]+\frac{3}{8}\,m_2\,s_\gamma\,\tilde{\mu}\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{3,1,1,-1}\left[m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,\tilde{\mu}\right]+ \\[4pt]
& \frac{3}{16}\,c_\gamma\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,2,1,-2}\left[m_2,\,\tilde{\mu},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+\frac{3}{16}\,m_2\,s_\gamma\,\tilde{\mu}\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,2,1,-1}\left[m_2,\,\tilde{\mu},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{3}\,g_2\,m_3\,g_3{}^2\left(-c_\gamma\,a_d{}^{\mathtt{i1i2}}+s_\gamma\,\tilde{\mu}\,y_d{}^{\mathtt{i1i2}}\right)\mathsf{LF}_{2,1,1,0}\left[m_3,\,m_{\tilde{d}}{}^{\mathtt{i2}},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{6}\,g_2\,m_3\,g_3{}^2\left(c_\gamma\,a_d{}^{\mathtt{i1i2}}-s_\gamma\,\tilde{\mu}\,y_d{}^{\mathtt{i1i2}}\right)\mathsf{LF}_{2,2,1,-1}\left[m_3,\,m_{\tilde{d}}{}^{\mathtt{i2}},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{3}\,g_2\,m_3\,g_3{}^2\left(c_\gamma\,a_d{}^{\mathtt{i1i2}}-s_\gamma\,\tilde{\mu}\,y_d{}^{\mathtt{i1i2}}\right)\mathsf{LF}_{3,1,1,-1}\left[m_3,\,m_{\tilde{d}}{}^{\mathtt{i2}},\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{6}\,g_2\,m_3\,g_3{}^2\left(-c_\gamma\,a_d{}^{\mathtt{i1i2}}+s_\gamma\,\tilde{\mu}\,y_d{}^{\mathtt{i1i2}}\right)\mathsf{LF}_{2,2,1,-1}\left[m_3,\,m_{\tilde{q}}{}^{\mathtt{i1}},\,m_{\tilde{d}}{}^{\mathtt{i2}}\right]+ \\[4pt]
& \frac{1}{16}\,g_2\,\tilde{\mu}\,y_d{}^{\mathtt{pi2}}\,y_u{}^{\mathtt{i1r}}\left(-s_\gamma\,\overline{a_u}^{\mathtt{pr}}+\tilde{\mu}\,c_\gamma\,\overline{y_u}^{\mathtt{pr}}\right)\mathsf{LF}_{2,2,1,-1}\left[m_{\tilde{q}}{}^{\mathtt{p}},\,\tilde{\mu},\,m_{\tilde{u}}{}^{\mathtt{r}}\right]+ \\[4pt]
& \frac{1}{16}\,g_2\,\tilde{\mu}\,y_d{}^{\mathtt{pi2}}\,y_u{}^{\mathtt{i1r}}\left(s_\gamma\,\overline{a_u}^{\mathtt{pr}}-\tilde{\mu}\,c_\gamma\,\overline{y_u}^{\mathtt{pr}}\right)\mathsf{LF}_{2,2,1,-1}\left[m_{\tilde{u}}{}^{\mathtt{r}},\,\tilde{\mu},\,m_{\tilde{q}}{}^{\mathtt{p}}\right]- \\[4pt]
& \frac{1}{12}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,1,-1}\left[\tilde{\mu},\,m_1,\,m_{\tilde{d}}{}^{\mathtt{i2}}\right]+\frac{1}{12}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{3,1,1,-2}\left[\tilde{\mu},\,m_1,\,m_{\tilde{d}}{}^{\mathtt{i2}}\right]+ \\[4pt]
& \frac{1}{12}\,g_2\,m_1\,s_\gamma\,\tilde{\mu}\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{3,1,1,-1}\left[\tilde{\mu},\,m_1,\,m_{\tilde{d}}{}^{\mathtt{i2}}\right]- \\[4pt]
& \frac{1}{24}\,g_2\,c_\gamma\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,1,-1}\left[\tilde{\mu},\,m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]-\frac{1}{24}\,g_2\,m_1\,s_\gamma\,\tilde{\mu}\,g_1{}^2\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,1,0}\left[\tilde{\mu},\,m_1,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{8}\,c_\gamma\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,1,-1}\left[\tilde{\mu},\,m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+\frac{1}{8}\,m_2\,s_\gamma\,\tilde{\mu}\,g_2{}^3\,y_d{}^{\mathtt{i1i2}}\,\mathsf{LF}_{2,1,1,0}\left[\tilde{\mu},\,m_2,\,m_{\tilde{q}}{}^{\mathtt{i1}}\right]+ \\[4pt]
& \frac{1}{8}\,g_2\,\tilde{\mu}\,y_d{}^{\mathtt{pi2}}\,y_u{}^{\mathtt{i1r}}\left(-s_\gamma\,\overline{a_u}^{\mathtt{pr}}+\tilde{\mu}\,c_\gamma\,\overline{y_u}^{\mathtt{pr}}\right)\mathsf{LF}_{2,1,1,0}\left[\tilde{\mu},\,m_{\tilde{q}}{}^{\mathtt{p}},\,m_{\tilde{u}}{}^{\mathtt{r}}\right]+ \\[4pt]
& \left.\frac{1}{8}\,g_2\,\tilde{\mu}\,y_d{}^{\mathtt{pi2}}\,y_u{}^{\mathtt{i1r}}\left(-s_\gamma\,\overline{a_u}^{\mathtt{pr}}+\tilde{\mu}\,c_\gamma\,\overline{y_u}^{\mathtt{pr}}\right)\mathsf{LF}_{3,1,1,-1}\left[\tilde{\mu},\,m_{\tilde{q}}{}^{\mathtt{p}},\,m_{\tilde{u}}{}^{\mathtt{r}}\right]\right)
\end{aligned}
$$