	$\sigma_{1^+}^{\#2}{}_{\alpha\beta}$	$\tau_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^-}^{\#1}{}_{\alpha}$
$\sigma_{1^+}^{\#1}{}_{\alpha\beta}\dagger$	$-\frac{\sqrt{2}}{t_1+k^2 t_1}$	$-\frac{i\sqrt{2}\,k}{t_1+k^2 t_1}$	0
$\sigma_{1^+}^{\#2}{}_{\alpha\beta}\dagger$	$-\frac{2k^2(2r_1+r_5)+t_1}{(1+k^2)^2 t_1^2}$	$\frac{-2ik^3(2r_1+r_5)+ik t_1}{(1+k^2)^2 t_1^2}$	$-\frac{\sqrt{2}}{t_1+k^2 t_1}$
$\tau_{1^+}^{\#1}{}_{\alpha\beta}\dagger$	$\frac{i(2k^3(2r_1+r_5)-kt_1)}{(1+k^2)^2 t_1^2}$	$\frac{-2k^4(2r_1+r_5)+k^2 t_1}{(1+k^2)^2 t_1^2}$	$\frac{i\sqrt{2}\,k}{t_1+k^2 t_1}$
$\sigma_{1^-}^{\#1}{}_{\alpha}\dagger$	0	0	0
$\sigma_{1^-}^{\#2}{}_{\alpha}\dagger$	0	0	0
$\tau_{1^-}^{\#1}{}_{\alpha}\dagger$	0	0	0
$\tau_{1^-}^{\#2}{}_{\alpha}\dagger$	0	0	0

	$\sigma_{1^+}^{\#2}{}_{\alpha\beta}$	$\tau_{1^+}^{\#1}{}_{\alpha\beta}$	$\sigma_{1^-}^{\#1}{}_{\alpha}$
$\sigma_{1^+}^{\#1}{}_{\alpha\beta}\dagger$	0	$-\frac{i\sqrt{2}\,k}{t_1+k^2 t_1}$	0
$\sigma_{1^+}^{\#2}{}_{\alpha\beta}\dagger$	$\frac{-2ik^3(2r_1+r_5)+ik t_1}{(1+k^2)^2 t_1^2}$	0	0
$\tau_{1^+}^{\#1}{}_{\alpha\beta}\dagger$	$\frac{-2k^4(2r_1+r_5)+k^2 t_1}{(1+k^2)^2 t_1^2}$	0	0
$\sigma_{1^-}^{\#1}{}_{\alpha}\dagger$	0	$\frac{2(t_1+t_3)}{3t_1 t_3+2k^2(r_1+r_5)(t_1+t_3)}$	$-\frac{2ik(t_1-2t_3)}{(1+2k^2)(3t_1 t_3+2k^2(r_1+r_5)(t_1+t_3))}$
$\sigma_{1^-}^{\#2}{}_{\alpha}\dagger$	0	$-\frac{\sqrt{2}\,(t_1-2t_3)}{(1+2k^2)(3t_1 t_3+2k^2(r_1+r_5)(t_1+t_3))}$	$\frac{ik\sqrt{2}\,(6k^2(r_1+r_5)+t_1+4t_3)}{(1+2k^2)^2(3t_1 t_3+2k^2(r_1+r_5)(t_1+t_3))}$
$\tau_{1^-}^{\#1}{}_{\alpha}\dagger$	0	$\frac{6k^2(r_1+r_5)+t_1+4t_3}{(1+2k^2)^2(3t_1 t_3+2k^2(r_1+r_5)(t_1+t_3))}$	$-\frac{ik\sqrt{2}\,(6k^2(r_1+r_5)+t_1+4t_3)}{(1+2k^2)^2(3t_1 t_3+2k^2(r_1+r_5)(t_1+t_3))}$
$\tau_{1^-}^{\#2}{}_{\alpha}\dagger$	0	$-\frac{2ik(t_1-2t_3)}{(1+2k^2)(3t_1 t_3+2k^2(r_1+r_5)(t_1+t_3))}$	$\frac{2k^2(6k^2(r_1+r_5)+t_1+4t_3)}{(1+2k^2)^2(3t_1 t_3+2k^2(r_1+r_5)(t_1+t_3))}$

	$\sigma_{0^+}^{\#1}$	$\tau_{0^+}^{\#2}$	$\tau_{0^+}^{\#1}$	$\sigma_{0^-}^{\#1}$
$\sigma_{0^+}^{\#1}\dagger$	$\frac{1}{(1+2k^2)^2 t_3}$	0	$-\frac{i\sqrt{2}\,k}{(1+2k^2)^2 t_3}$	0
$\tau_{0^+}^{\#1}\dagger$	$\frac{i\sqrt{2}\,k}{(1+2k^2)^2 t_3}$	0	$\frac{2k^2}{(1+2k^2)^2 t_3}$	0
$\tau_{0^+}^{\#2}\dagger$	0	0	0	0
$\sigma_{0^-}^{\#1}\dagger$	0	0	0	$-\frac{1}{t_1}$

Source constraints

SO(3) irreps	#
$\tau_{0^+}^{\#2} == 0$	1
$\tau_{0^+}^{\#1} - 2ik\,\sigma_{0^+}^{\#1} == 0$	1
$\tau_{1^-}^{\#2\,\alpha} + 2ik\,\sigma_{1^-}^{\#2\,\alpha} == 0$	3
$\tau_{1^-}^{\#1\,\alpha} == 0$	3
$\tau_{1^+}^{\#1\,\alpha\beta} + ik\,\sigma_{1^+}^{\#2\,\alpha\beta} == 0$	3
$\tau_{2^+}^{\#1\,\alpha\beta} - 2ik\,\sigma_{2^+}^{\#1\,\alpha\beta} == 0$	5
Total #:	16

	$\omega_{0^+}^{\#1}$	$f_{0^+}^{\#1}$	$f_{0^+}^{\#2}$	$\omega_{0^-}^{\#1}$
$\omega_{0^+}^{\#1}\dagger$	t_3	$-i\sqrt{2}\,k t_3$	0	0
$f_{0^+}^{\#1}\dagger$	$i\sqrt{2}\,k t_3$	$2k^2 t_3$	0	0
$f_{0^+}^{\#2}\dagger$	0	0	0	0
$\omega_{0^-}^{\#1}\dagger$	0	0	0	$-t_1$

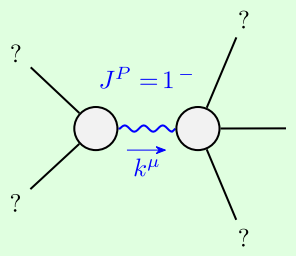
	$\omega_{2^+\,\alpha\beta}^{\#1}$	$f_{2^+\,\alpha\beta}^{\#1}$	$\omega_{2^-\,\alpha\beta\chi}^{\#1}$
$\omega_{2^+\,\alpha\beta}^{\#1}\dagger$	$\frac{t_1}{2}$	$-\frac{ik t_1}{\sqrt{2}}$	0
$f_{2^+\,\alpha\beta}^{\#1}\dagger$	$\frac{ik t_1}{\sqrt{2}}$	$k^2 t_1$	0
$\omega_{2^-\,\alpha\beta\chi}^{\#1}\dagger$	0	0	$k^2 r_1 + \frac{t_1}{2}$

	$\sigma_{2^+\,\alpha\beta}^{\#1}$	$\tau_{2^+\,\alpha\beta}^{\#1}$	$\sigma_{2^-\,\alpha\beta\chi}^{\#1}$
$\sigma_{2^+}^{\#1}{}^{\dagger\,\alpha\beta}$	$\frac{2}{(1+2k^2)^2 t_1}$	$-\frac{2i\sqrt{2}\,k}{(1+2k^2)^2 t_1}$	0
$\tau_{2^+}^{\#1}{}^{\dagger\,\alpha\beta}$	$\frac{2i\sqrt{2}\,k}{(1+2k^2)^2 t_1}$	$\frac{4k^2}{(1+2k^2)^2 t_1}$	0
$\sigma_{2^-}^{\#1}{}^{\dagger\,\alpha\beta\chi}$	0	0	$\frac{2}{2k^2 r_1 + t_1}$

	$\omega_{1^+\,\alpha\beta}^{\#2}$	$f_{1^+\,\alpha\beta}^{\#1}$	$\omega_{1^-\,\alpha}^{\#1}$	$\omega_{1^-\,\alpha}^{\#2}$	$f_{1^-\,\alpha}^{\#2}$
$\omega_{1^+\,\alpha\beta}^{\#1}\dagger$	$k^2(2r_1+r_5)-\frac{t_1}{2}$	$-\frac{ik t_1}{\sqrt{2}}$	0	0	0
$\omega_{1^+\,\alpha\beta}^{\#2}\dagger$	$-\frac{t_1}{\sqrt{2}}$	0	0	0	0
$f_{1^+\,\alpha\beta}^{\#1}\dagger$	$\frac{ik t_1}{\sqrt{2}}$	0	0	0	0
$\omega_{1^-\,\alpha}^{\#1}\dagger$	0	0	$\frac{1}{6}(6k^2(r_1+r_5)+t_1+4t_3)$	$\frac{t_1-2t_3}{3\sqrt{2}}$	$-\frac{1}{3}ik(t_1-2t_3)$
$\omega_{1^-\,\alpha}^{\#2}\dagger$	0	0	$\frac{t_1-2t_3}{3\sqrt{2}}$	$\frac{t_1+t_3}{3}$	$-\frac{1}{3}i\sqrt{2}\,k(t_1+t_3)$
$f_{1^-\,\alpha}^{\#2}\dagger$	0	0	$-\frac{1}{3}ik(t_1-2t_3)$	$-\frac{1}{3}i\sqrt{2}\,k(t_1+t_3)$	$\frac{2}{3}k^2(t_1+t_3)$

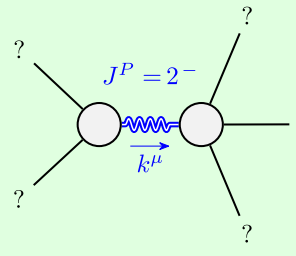
Lagrangian density

$$
\begin{aligned}
&-\tfrac{1}{3}t_1\,\omega_{\prime}^{\alpha\prime}\,\omega_{\kappa\alpha}{}^{\kappa}+\tfrac{2}{3}t_3\,\omega_{\prime}^{\kappa\lambda}\,\omega_{\kappa\lambda}{}^{\prime}+f^{\alpha\beta}\,\tau_{\alpha\beta}+\\
&\omega^{\alpha\beta\chi}\,\sigma_{\alpha\beta\chi}-r_5\,\partial_{\prime}\omega^{\kappa\lambda}{}_{\kappa}\,\partial^{\prime}\omega_{\lambda\,\alpha}{}^{\alpha}-\tfrac{2}{3}r_1\,\partial_{\theta}\omega_{\alpha\beta}{}^{\kappa}\,\partial_{\kappa}\omega^{\alpha\beta\theta}+\\
&\tfrac{2}{3}r_1\,\partial_{\theta}\omega_{\alpha\beta}{}^{\kappa}\,\partial_{\kappa}\omega^{\theta\alpha\beta}-r_5\,\partial_{\alpha}\omega^{\theta\kappa\lambda}{}_{\theta}\,\partial_{\kappa}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial_{\kappa}\omega^{\kappa\lambda\theta}+\\
&2r_5\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial_{\kappa}\omega^{\kappa\lambda\theta}-\tfrac{1}{2}t_1\,\partial^{\alpha}f_{\kappa\theta}\,\partial^{\kappa}f_{\alpha}{}^{\theta}-\tfrac{1}{2}t_1\,\partial^{\alpha}f^{\lambda}{}_{\kappa}\,\partial^{\kappa}f_{\alpha\lambda}+\\
&\tfrac{1}{3}t_1\,\omega_{\kappa\alpha}{}^{\alpha}\,\partial^{\kappa}f^{\prime}{}_{\prime}-\tfrac{2}{3}t_3\,\omega_{\kappa\lambda}{}^{\lambda}\,\partial^{\kappa}f^{\prime}{}_{\prime}+\\
&\tfrac{2}{3}t_1\,\partial^{\alpha}f_{\kappa\alpha}\,\partial^{\kappa}f^{\prime}{}_{\prime}-\tfrac{4}{3}t_3\,\partial^{\alpha}f_{\prime}{}^{\kappa}\,\partial_{\kappa}f^{\lambda}{}_{\lambda}\,\partial^{\kappa}f^{\prime}{}_{\prime}+\\
&2t_1\,\omega_{\prime\kappa\theta}\,\partial^{\kappa}f^{\prime\theta}-\tfrac{1}{3}t_1\,\omega_{\prime\alpha}{}^{\alpha}\,\partial^{\kappa}f^{\prime}{}_{\kappa}+\\
&\tfrac{2}{3}t_3\,\omega_{\prime\lambda}{}^{\lambda}\,\partial^{\kappa}f^{\prime}{}_{\kappa}+\tfrac{1}{2}t_1\,\partial_{\kappa}f^{\lambda}{}_{\theta}\,\partial^{\kappa}f_{\lambda}{}^{\theta}-\\
&\tfrac{1}{3}t_1\,\partial^{\alpha}f^{\lambda}{}_{\alpha}\,\partial^{\kappa}f_{\lambda\kappa}+\tfrac{2}{3}r_1\,\partial_{\kappa}\omega^{\alpha\beta\theta}\,\partial^{\kappa}\omega_{\alpha\beta\theta}-\tfrac{2}{3}r_1\,\partial_{\kappa}\omega^{\theta\alpha\beta}\,\partial^{\kappa}\omega_{\alpha\beta\theta}+\\
&\tfrac{2}{3}r_1\,\partial^{\beta}\omega_{\prime}^{\lambda\alpha}\,\partial_{\lambda}\omega_{\alpha\beta}{}^{\prime}+r_5\,\partial_{\alpha}\omega_{\lambda}{}^{\alpha}{}_{\theta}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}-r_5\,\partial_{\theta}\omega_{\lambda}{}^{\alpha}{}_{\alpha}\,\partial^{\lambda}\omega^{\theta\kappa}{}_{\kappa}
\end{aligned}
$$



Massive particle

Pole residue:	$-\frac{3(-2t_1 t_3(t_1+t_3)+r_1(t_1{}^2+2t_3{}^2)+r_5(t_1{}^2+2t_3{}^2))}{2(r_1+r_5)(t_1+t_3)(-3t_1 t_3+r_1(t_1+t_3)+r_5(t_1+t_3))} > 0$
Polarisations:	3
Square mass:	$-\frac{3t_1 t_3}{2(r_1+r_5)(t_1+t_3)} > 0$
Spin:	1
Parity:	Odd



Massive particle

Pole residue:	$-\frac{1}{r_1} > 0$
Polarisations:	5
Square mass:	$-\frac{t_1}{2r_1} > 0$
Spin:	2
Parity:	Odd

(No massless particles)

Unitarity conditions

$r_1 < 0 \;\&\&\; r_5 < -r_1 \;\&\&\; t_1 > 0 \;\&\&\; t_3 < -t_1 \,||\, t_3 > 0$