Lagrangian density

$$2\beta^2\phi^2+\alpha^2\beta^2 h_{\alpha\mu\nu}h^{\alpha\mu\nu}-3\alpha^2\beta^2 h^{\alpha}{}_{\alpha}{}^{\mu}h_{\mu}{}^{\nu}{}_{\nu}+\tfrac{1}{2}\phi\partial_\alpha\partial^\alpha\phi+\alpha\beta h_{\alpha}{}^{\mu}{}_{\mu}\partial^\alpha\phi-\tfrac{3}{2}\alpha^2 h^{\alpha}{}_{\alpha}{}^{\mu}\partial_\rho\partial_\mu h^{\nu}{}_{\nu}{}^{\rho}-3\alpha^2 h^{\alpha\mu\nu}\partial_\rho\partial_\nu h_{\alpha\mu}{}^{\rho}+6\alpha^2 h^{\alpha}{}_{\alpha}{}^{\mu}\partial_\rho\partial_\nu h_{\mu}{}^{\nu\rho}+\alpha^2 h^{\alpha\mu\nu}\partial_\rho\partial^\rho h_{\alpha\mu\nu}-3\alpha^2 h^{\alpha}{}_{\alpha}{}^{\mu}\partial_\rho\partial^\rho h_{\mu}{}^{\nu}{}_{\nu}$$

Added source term: $\phi\rho+h^{\alpha\beta\chi}\mathcal{F}_{\alpha\beta\chi}$

	$\mathcal{F}^{\#1}_{0^+}$	$\mathcal{F}^{\#2}_{0^+}$	$\rho^{\#1}_{0^+}$
$\mathcal{F}^{\#1}_{0^+}{}^\dagger$	$\frac{16\beta^4-39\beta^2k^2+9k^4}{40\alpha^2\beta^6}$	$-\frac{24\beta^4-17\beta^2k^2+3k^4}{40\alpha^2\beta^6}$	$\frac{ik(\beta^2+3k^2)}{20\alpha\beta^5}$
$\mathcal{F}^{\#2}_{0^+}{}^\dagger$	$-\frac{24\beta^4-17\beta^2k^2+3k^4}{40\alpha^2\beta^6}$	$\frac{16\beta^4-7\beta^2k^2+k^4}{40\alpha^2\beta^6}$	$\frac{i(\beta-k)k(\beta+k)}{20\alpha\beta^5}$
$\rho^{\#1}_{0^+}{}^\dagger$	$-\frac{ik(\beta^2+3k^2)}{20\alpha\beta^5}$	$\frac{ik(-\beta^2+k^2)}{20\alpha\beta^5}$	$\frac{5\beta^2+k^2}{10\beta^4}$

	$h^{\#1}_{0^+}$	$h^{\#2}_{0^+}$	$\phi^{\#1}_{0^+}$
$h^{\#1}_{0^+}{}^\dagger$	$\frac{1}{2}\alpha^2(-4\beta^2+k^2)$	$\frac{3}{2}\alpha^2(-2\beta^2+k^2)$	$\frac{1}{2}i\alpha\beta k$
$h^{\#2}_{0^+}{}^\dagger$	$\frac{3}{2}\alpha^2(-2\beta^2+k^2)$	$\frac{1}{2}\alpha^2(-4\beta^2+9k^2)$	$\frac{1}{2}i\alpha\beta k$
$\phi^{\#1}_{0^+}{}^\dagger$	$-\frac{1}{2}i\alpha\beta k$	$-\frac{1}{2}i\alpha\beta k$	$2\beta^2-\frac{k^2}{2}$

	$h^{\#1}_{1^-}{}_\alpha$	$h^{\#2}_{1^-}{}_\alpha$
$h^{\#1}_{1^-}{}^\dagger{}^\alpha$	0	$-\sqrt{5}\,\alpha^2\beta^2$
$h^{\#2}_{1^-}{}^\dagger{}^\alpha$	$-\sqrt{5}\,\alpha^2\beta^2$	$4\alpha^2(-\beta^2+k^2)$

	$\mathcal{F}^{\#1}_{1^-}{}_\alpha$	$\mathcal{F}^{\#2}_{1^-}{}_\alpha$
$\mathcal{F}^{\#1}_{1^-}{}^\dagger{}^\alpha$	$\frac{4(\beta-k)(\beta+k)}{5\alpha^2\beta^4}$	$-\frac{1}{\sqrt{5}\alpha^2\beta^2}$
$\mathcal{F}^{\#2}_{1^-}{}^\dagger{}^\alpha$	$-\frac{1}{\sqrt{5}\alpha^2\beta^2}$	0

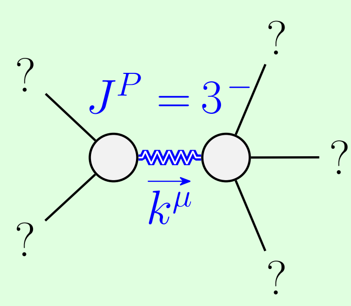
	$\mathcal{F}^{\#1}_{2^+}{}_{\alpha\beta}$
$\mathcal{F}^{\#1}_{2^+}{}^\dagger{}^{\alpha\beta}$	$\frac{1}{\alpha^2\beta^2}$

	$h^{\#1}_{2^+}{}_{\alpha\beta}$
$h^{\#1}_{2^+}{}^\dagger{}^{\alpha\beta}$	$\alpha^2\beta^2$

(No source constraints)

	$h^{\#1}_{3^-}{}_{\alpha\beta\chi}$
$h^{\#1}_{3^-}{}^\dagger{}^{\alpha\beta\chi}$	$\alpha^2(\beta-k)(\beta+k)$

	$\mathcal{F}^{\#1}_{3^-}{}_{\alpha\beta\chi}$
$\mathcal{F}^{\#1}_{3^-}{}^\dagger{}^{\alpha\beta\chi}$	$\frac{1}{\alpha^2(\beta^2-k^2)}$



Massive particle	
Pole residue:	$\frac{1}{\alpha^2}>0$
Polarisations:	7
Square mass:	$\beta^2>0$
Spin:	3
Parity:	Odd

Unitarity conditions

$\alpha<0\,||\,\alpha>0\;\&\&\;\beta<0\,||\,\beta>0$

(No massless particles)