

$$\begin{aligned}
& \frac{-1/3i[12][24]^2(26)^2(2)1+6[4]^2s_{345}}{(12)[34][45](2)1+6[2]^3(2)1+6[3](2)1+6[5]} + \\
& \frac{1/2i[12][13](16)[24](26)(2)1+6[4]^3}{(12)[34][45](2)1+6[2]^2(2)1+6[3]^2(2)1+6[5]} + \\
& \frac{[12][24](26)(2)1+6[4]^2(-4/3i[14](16)-5/6i[24](26))}{(12)[34][45](2)1+6[2]^2(2)1+6[3](2)1+6[5]} + \\
& \frac{-1i[12][13]^2(16)^2(2)1+6[4]^4}{(12)[34][45](2)1+621+6[3]^3(2)1+6[5]s_{345}} + \\
& \frac{(16)[12][13](2)1+6[4]^3(7/2i[14](16)+2i[24](26))}{(12)[34][45](2)1+621+6[3]^2(2)1+6[5]s_{345}} + \\
& \frac{[12](2)1+6[4]^2(-13/3i[14]^2(16)^2-17/3i[14](16)[24](26)-11/6i[24]^2(26)^2)}{(12)[34][45](2)1+621+6[3](2)1+6[5]s_{345}} + \\
& \frac{(16)[16](3)1+6[2](5)1+6[4](6)2+3[1]s_{245}(5/64i(12)[12] \dots \langle 7 \text{ terms} \rangle \dots +5/32i(35)[35])}{(1)2+3[6](2)1+6[3](4)1+6[5]\Delta_{624}^2} + \\
& \frac{(16)[16](3)1+6[2](5)1+6[4](6)2+3[1]s_{345}(5/64i(12)[12] \dots \langle 4 \text{ terms} \rangle \dots -5/128i(25)[25])}{(1)2+3[6](2)1+6[3](4)1+6[5]\Delta_{624}^2} + \\
& \frac{(16)[16](3)1+6[2](5)1+6[4](6)2+3[1](45)[45](5/32i(12)[12]+5/32i(13)[13])}{(1)2+3[6](2)1+6[3](4)1+6[5]\Delta_{624}^2} + \\
& \frac{[16](26)(2)1+6[4]^2(5/2i[13][14](16)^2-3/2i[12](16)(26)[34]+9/2i[13](16)[24](26)+2i[23][24](26)^2)}{(12)[45](2)1+6[3]^3(2)1+6[5]s_{345}} + \\
& \frac{4i[12](26)(2)1+6[4]^2(6)1+2[4]}{(12)[45](2)1+6[3]^2(2)1+6[5]s_{345}} + \\
& \frac{[15]^2(16)(3)1+6[5]\Pi_{462}(-3/8i[12](23)[25](45) \dots \langle 3 \text{ terms} \rangle \dots -1/4i[15][23](34)(35))}{[56](2)1+6[5](4)1+6[5]^3\Delta_{624}} + \\
& \frac{(34)[15]^2(16)(3)1+6[5](-3/2i[14](34)-1/2i[15](35))}{(23)[56](2)1+6[5](4)1+6[5]^3} + \\
& \frac{[15]^2(16)(3)1+6[5]\Pi_{462}(-3/16i(12)[12]^2(23)[23](35) \dots \langle 15 \text{ terms} \rangle \dots +3/16i[13][23](34)(35)^2(45))}{[56](2)1+6[5](4)1+6[5]^2\Delta_{624}^2} + \\
& \frac{[15](16)(-9/4i[12]^2(13)[15](23)(24)[24] \dots \langle 27 \text{ terms} \rangle \dots +3/8i[13][15][25](34)(35)^2(45))}{[56](2)1+6[5](4)1+6[5]^2\Delta_{624}^2} + \\
& \frac{[15](16)\Pi_{462}(3/2i[12]^2(23)^2[25] \dots \langle 5 \text{ terms} \rangle \dots +1/8i[15]^2[25](35)^2)}{[56](2)1+6[5](4)1+6[5]^2\Delta_{624}^2} + \\
& \frac{4i[15](36)(3)2+4[1](3)1+6[5]}{(23)[56](2)1+6[5](4)1+6[5]^2} + \\
& \frac{\Omega_{462}(5/16i(13)^2[13][14]^2[15](34)(36) \dots \langle 82 \text{ terms} \rangle \dots -1/16i[16]^2(36)^4[36][45])}{(23)[56](2)1+6[5](4)1+6[5]\Delta_{624}^2} + \\
& \frac{\Omega_{462}(-85/128i(12)^3[12]^5(36) \dots \langle 124 \text{ terms} \rangle \dots +35/64i[14][16](24)[24]^3(34)(46)^2)}{[23](45)[56](2)1+6[5](4)1+6[5]\Delta_{624}^2} + \\
& \frac{[15]^2(16)(27/64i(12)^2[12]^3(23)[24](35) \dots \langle 78 \text{ terms} \rangle \dots +13/64i[13][23](34)(35)^3(45)^2)}{[56](2)1+6[5](4)1+6[5]\Delta_{624}^2} + \\
& \frac{-83/48i(13)^2[13][14]^2[15](34)(36) \dots \langle 79 \text{ terms} \rangle \dots +29/24i[16]^2(36)^3(45)(56)[56]}{(23)[56](2)1+6[5](4)1+6[5]\Delta_{624}^2} + \\
& \frac{-17/8i(12)^3[12]^5(36) \dots \langle 176 \text{ terms} \rangle \dots +1/24i[13]^2[23][26](34)(36)^3(46)}{[23](45)[56](2)1+6[5](4)1+6[5]\Delta_{624}^2} + \\
& \frac{[12](-25/4i(12)^3[12]^4(13)[14](56) \dots \langle 282 \text{ terms} \rangle \dots +3/4i[12](13)[13][23](25)^2(25)(35)(36)(45))}{[23](45)[56](2)1+6[5]\Delta_{624}^2} + \\
& (123456 \rightarrow \overline{654321}) + \\
& \frac{-1/4i(13)^2(15)[26][46]^2(6)2+3[1]\Pi_{624}}{(12)[56](1)2+3[6]^3\Delta_{624}} + \\
& \frac{-1i(13)^3[46]^3(6)2+3[1]}{(12)(23)[45][56](1)2+3[6]^3} + \\
& \frac{-3/16i(13)^2(15)[26][46]^2(6)2+3[1]^2\Pi_{624}}{(12)[56](1)2+3[6]^2\Delta_{624}^2} + \\
& \frac{(13)[46](6)2+3[1](-3/8i[12](13)(15)[46]+3/8i(13)[14](15)[26]+3/8i(13)[23](35)[46]+3/8i(15)[26](35)[45])}{(12)[56](1)2+3[6]^2\Delta_{624}^2} + \\
& \frac{\Pi_{624}(-1/8i(12)(13)[16][24]^2(35) \dots \langle 13 \text{ terms} \rangle \dots +1/8i(15)[26](35)^2(45)^2)}{(12)[56](1)2+3[6]^2\Delta_{624}^2} + \\
& \frac{(13)[46](-5/2i(13)^2[14]^2-3i(13)[14](23)[24]-2i(13)[14](35)[45]+1/2i(35)^2(45)^2)}{(12)(23)[45][56](1)2+3[6]^2} + \\
& \frac{(16)[16](3)1+6[2](5)1+6[4](6)2+3[1]\Pi_{624}\Pi_{246}\Pi_{462}(-5/256is_{245}-5/256is_{345}-5/128i(45)[45])}{(1)2+3[6](2)1+6[3](4)1+6[5]\Delta_{624}^3} + \\
& \frac{1/48i(13)[46](6)2+3[1](3)1+5[4]^2\Omega_{624}}{(12)(23)[45][56](1)2+3[6]\Delta_{624}^2} + \\
& \frac{(6)2+3[1]\Omega_{624}(-31/48i[12]^2(13)(15)^2[46] \dots \langle 16 \text{ terms} \rangle \dots +1/24i(15)[24][26](35)^2(35))}{(12)[23](45)[56](1)2+3[6]\Delta_{624}^2} + \\
& \frac{(13)[46](6)2+3[1]^2(-27/64i[12](13)(15)[46] \dots \langle 4 \text{ terms} \rangle \dots -13/64i(15)[26](35)[45])}{(12)[56](1)2+3[6]\Delta_{624}^2} + \\
& \frac{7/8i(12)[12](13)^2[14]^2(23)[24] \dots \langle 60 \text{ terms} \rangle \dots +1/8i(35)^3(45)[45]^4}{(12)(23)[45][56](1)2+3[6]\Delta_{624}} + \\
& \frac{-1/12i(12)^2[12]^2(23)[24](35)^2 \dots \langle 35 \text{ terms} \rangle \dots +1/12i(13)[13][23][25][34](35)^3}{(12)[23](45)[56](1)2+3[6]\Delta_{624}} + \\
& \frac{-19/16i(12)^3[12](13)[14]^4(25)(34)(36) \dots \langle 110 \text{ terms} \rangle \dots +5/32i[14](26)(36)^5[36]^2[46]^2[56]}{(12)(23)[45][56](2)1+6[5]\Delta_{624}^2} + \\
& \frac{59/8i[12](13)^4[13]^3[14](56)^2 \dots \langle 849 \text{ terms} \rangle \dots +251/24i[16][26][35](36)^2[46](56)^4[56]}{(12)[23](45)(2)1+6[5]\Delta_{624}^2} + \\
& \frac{7/32i(13)^4[13]^2[14]^3(35)(36) \dots \langle 131 \text{ terms} \rangle \dots -3/16i[15][34](36)^4[36](46)[46]^3}{(12)[45][56](2)1+6[5]\Delta_{624}^2} + \\
& \frac{683/384i(13)^3[13]^2(14)[14]^3(36) \dots \langle 112 \text{ terms} \rangle \dots +37/64i[16][34](36)^5[36]^2[46]}{(12)[56](2)1+6[5]\Delta_{624}^2} + \\
& \frac{1313/192i(12)^3[12]^5(13)[14](56) \dots \langle 830 \text{ terms} \rangle \dots +115/96i[13][15][25]^2[34](35)^4[35](56)}{[23](45)[56](2)1+6[5]\Delta_{624}^2} + \\
& \frac{-19583/384i(12)^2[12]^4(13)[14](56)^2 \dots \langle 425 \text{ terms} \rangle \dots -2561/6i[15][16][24][26](36)(56)^4[56]}{[23](45)(2)1+6[5]\Delta_{624}^2}
\end{aligned}$$