

α_0	P_k	$R_1^{(x_0, y_0)} S$
α_1	P_k	$\underline{a_{k+1}} R_1^{(x_1, y_1)} S$
α_2	P_k	$a_{k+1} \overbrace{I_1 F_{1,x} F_{1,y} E_1^{(x_1, y_1)}}^{R_1^{(x_1, y_1)}} \overbrace{I_2 F_{2,x} F_{2,y} E_2^{(x_1, y_1)}}^{R_2^{(x_1, y_1)}} S$
α_3	P_k	$I_2 \downarrow a_{k+1} I_1 F_{1,x} F_{1,y} E_1^{(x_1, y_1)} F_{2,x} F_{2,y} E_2^{(x_1, y_1)} S$
α_4	P_k	$I_2 a_{k+1} I_1 F_{1,x} F_{1,y} \downarrow F_{2,y} E_1^{(x_1, y_1)} F_{2,x} E_2^{(x_1, y_1)} S$
α_5	P_k	$I_2 a_{k+1} I_1 F_{1,x} \downarrow F_{2,y} F_{1,y} E_1^{(x_1, y_1)} F_{2,x} E_2^{(x_1, y_1)} S$
α_6	P_k	$I_2 \text{ --- } I_1 F_{1,x} F_{2,y} \downarrow F_{1,y} E_1^{(x_0, y_0)} F_{2,x} E_2^{(x_1, y_1)} S$
α_7	P_k	$I_2 I_1 F_{1,x} F_{2,y} \downarrow F_{2,x} F_{1,y} E_1^{(x_0, y_0)} E_2^{(x_1, y_1)} S$
α_8	P_k	$I_2 \downarrow F_{2,y} I_1 F_{1,x} F_{2,x} F_{1,y} E_1^{(x_0, y_0)} E_2^{(x_1, y_1)} S$
α_9	P_k	$I_2 \downarrow F_{2,y} F_{2,x} I_1 F_{1,x} F_{1,y} E_1^{(x_0, y_0)} E_2^{(x_1, y_1)} S$
α_{10}	P_k	$I_2 \overbrace{F_{2,y} F_{2,x} \downarrow E_2^{(x_1, y_1)}}^{R_2^{(x_1, y_1)}} \overbrace{I_1 F_{1,x} F_{1,y} E_1^{(x_0, y_0)}}^{R_1^{(x_0, y_0)}} S$